Texas A&M Institute of Data Science

Early Career Collaboration Program

The Texas A&M Institute of Data Science (TAMIDS) Early Career Collaboration Program invites proposals for two-year projects to expand research collaboration with TAMIDS Thematic Labs and support individuals interested in Data Science, Artificial Intelligence (AI), and Machine Learning. Award teams will receive up to $40,000 for two-year projects to support engagement with TAMIDS research activities, programs, or its broader mission. The program is open to multidisciplinary teams from any field of study and requires collaboration with one (1) TAMIDS Thematic Lab.

Goals: TAMIDS Early Career Collaboration Program aims to catalyze new collaborations with early career Texas A&M faculty working in the foundations or applications of Data Science, Artificial Intelligence (AI), or Machine Learning or wishing to incorporate these fields into their research. TAMIDS’s research and training programs combine Data Science and AI expertise from engineering, technology, science, and the humanities to inform broader social challenges. TAMIDS seeks to build on its research investments by supporting research that leverages or enhances TAMIDS research portfolio by aligning with or extending the scope of a TAMIDS Thematic Lab, by introducing new elements that seed future initiatives, or by connecting TAMIDS to other research programs at Texas A&M. The collaborations should have strong potential to persist beyond the duration of the program by generating results that will form the basis for additional collaborative activities, funding proposals, or other support activities.

Program Format:

- **Applicant Team:** The program solicits applications from project teams of two (2) faculty or other PI-eligible researchers with administrative locations in any department from an eligible institution (see Eligibility below). Teams must demonstrate collaboration with a TAMIDS Thematic Lab by having one (1) TAMIDS Thematic Lab member on the team and the other member with no current membership in a TAMIDS Thematic Lab. Additionally, at least one (1) team member must be a tenure-track Assistant Professor on the application deadline date. Each person can be a member of no more than one applicant team per cycle.

- **Funding:** Selected teams will be awarded $20,000 each year, with funding for the second year contingent on the successful review of a report due at the end of the first year. Funds may be used to support postdoctoral researchers or graduate students through salary, tuition, and fees. Funding does not support travel, equipment, or faculty salaries.

- **Facilities:** Awardees and research students supported in the project may utilize TAMIDS shared collaboration spaces (subject to availability). Teams are encouraged to explore using Texas A&M High Performance Research Computing (HPRC) resources and collaborating with other research division centers, institutes, and facilities. Awardees wishing to develop data science knowledge to enhance their existing research may utilize TAMIDS online training resources, TAMIDS research affiliates, and our ongoing seminars and workshop series.

- **Outcomes:** Applications should identify funding opportunities to which the proposed work will be responsive, and awardees are expected to submit a collaborative proposal within two (2) years from the start of the award. Funding proposals arising from the award should include support for collaborating TAMIDS personnel contributing to the project, including Thematic Labs’ graduate students and postdocs if involved. Submission of proposals through TAMIDS is encouraged, in which case proposal development support will be provided by TAMIDS staff. The allocation of unit IDC will follow existing administrative arrangements where these exist, and otherwise allocated by reasonable sharing as agreed.

**List of TAMIDS Thematic Labs**

- Agriculture Smart Data Lab
- Data Justice Lab
- Digital Twin Lab
- Knowledge Development Lab
- Operational Data Science Lab
- Scientific Machine Learning (SciML) Lab
- Urban AI Lab
- Visceral Intersensory Visualization & Information Design (VIVID) Lab
**Connection to Priority Areas:** TAMIDS particularly encourages applications related to one or more of the following:

- Priority areas identified in national-level reports and initiatives, such as the US Presidential Executive Order on the [Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence](https://www.whitehouse.gov/tamids/).
- Major strategic initiatives within Texas A&M involving opportunities for Data Science, Machine Learning, and AI.
- Rapidly growing and high-impact areas in AI, such as Generative AI and Large Language Models.
- Broadening Data Science, Machine Learning, and AI knowledge or skills in new communities.
- Enhancing the University-Workforce Pipeline to data-rich industries.

**Engagement:** In addition to research activities, applicant teams must propose engagement with TAMIDS or its Thematic Labs. This engagement must entail ecosystem development, e.g., through education, training, or outreach, in scope with the proposed research. Engagement opportunity questions can be directed to Drew Casey, TAMIDS Assistant Director of Program Engagement.

**Eligibility:** Each applicant must be a full-time faculty or PI-eligible researchers with administrative location in [Texas A&M University](https://www.tamu.edu) (including the Galveston and Qatar campuses), TEES, TEEX, AgriLife Research, AgriLife Extension, or TTI on the application deadline. One team member must be an early career faculty member on the application deadline, i.e., a tenure-track Assistant Professor. Team members whose primary location is outside College Station must detail measures to establish and sustain the collaboration remotely. No additional funding is available to support transport or accommodations. Preference will be given to applicant teams whose members have previously not participated in pilot projects in a TAMIDS Thematic Lab. Each person can be a member of no more than one applicant team per cycle.

**Program Size:** TAMIDS expects up to four (4) awards this cycle. Each award will provide funding for up to two (2) years.

**Deadline:** Proposals will be accepted up to the deadline date of **March 25, 2024, 11:59 pm CST**.

**Proposal Review:** Proposals will be reviewed competitively by a committee established by the TAMIDS Director, with awards being communicated by **May 6, 2024**.

**Application Procedure:** Proposals should be uploaded through Qualtrics via [tx.ag/EarlyCareerProposal](https://www.tamu.edu) as a single PDF file containing the following information:

1. **Cover Page**, listing:
   a. Proposal Title (maximum 180 characters)
   c. The name, email address, department, and primary location for each member of the applicant team. The first listed applicant will be the point of contact for the proposal.
   d. Summary of the proposed research (200 words maximum)
   e. Up to four (4) keywords that describe the research area(s) or target audience for proposed activities.

2. **Project Description:** Listing the proposed research activities, three (3) pages maximum (Arial, 10pt, one-inch margins), additional pages for figures and bibliography allowed. Descriptions should include the following:
   a. Proposed Research
      i. Description of proposed study area and specific research problems to be addressed.
      ii. Timeline, including milestones for the end of the first year and expected outcomes and products.
      iii. Targeted funding opportunities and proposal submission timeline.
      iv. Summary budget describing how the award will support the proposed activities.
   b. Positioning
      i. How the proposed work aligns with TAMIDS research programs or extends its research portfolio.
      ii. How the proposed research connects to one or more priority areas as described above.
      iii. The applicants’ preparation for the proposed activities.
   c. Engagements & Broader Impacts
      i. Proposed engagement activities in education, training, knowledge transfer, or outreach, including coordination through existing TAMIDS programs.
      ii. Plans to sustain the benefits of collaboration with TAMIDS beyond the award period.
   d. For team members outside College Station, describe how the collaboration will be established and
3. **Resumes**: Two-page (maximum) resumes for both team members.

4. **(Optional) Documentation of Connection to Priority Areas**: Possible formats include but are not limited to detailed references to external documents, reports, and support letters (2 pages maximum).

**Program Contact Information:**
- [Drew Casey](mailto:drew.casey@tamu.edu), TAMIDS Assistant Director of Program Engagement, [drew.casey@tamu.edu](mailto:drew.casey@tamu.edu)