



INSTITUTE FOR CREATIVITY,
ARTS, AND TECHNOLOGY
VIRGINIA TECH.

INSTITUTE FOR CREATIVITY, ARTS, AND TECHNOLOGY
MAJOR SEAD GRANTS CALL FOR PROPOSALS FY1920

Request for Proposals: Major SEAD Grants (Science, Engineering, Art, and Design)
Submission Due Date: February 15, 2019 (5:00pm EST)

SUMMARY:

At the Institute for Creativity, Arts, and Technology (ICAT), our mission is to build bridges to bring people together so that new ideas can grow. We invite applications for projects that are creative, innovative, and show strong potential to contribute to ICAT's goals and those of its partners. These SEAD grants can be used to pursue a range of transdisciplinary activities including creative projects, pilot or feasibility studies, or preliminary research. We're hopeful that projects supported by these resources will ultimately become larger projects, longer term initiatives, or one-time events, performances, or exhibitions that are visible at the national level. You know that "back-of-the-mind" box-smashing, transdisciplinary, risky idea you can't get out of your head - the one that may change the world? That's what we're looking for.

ELIGIBLE INVESTIGATORS:

All faculty members at Virginia Tech are invited to submit an application and lead a project team.

We're looking for teams comprised of faculty from two different fields, with preference given to those projects that include PIs from two or more colleges.

Diversity matters - and ICAT celebrates the critical importance of diverse teams of scholars. We want to encourage the diversity of our research teams as much as we can. ICAT is dedicated to InclusiveVT - serving in the spirit of community, diversity, and excellence to create a community that nurtures learning and growth for all of its members. See Virginia Tech's Principles of Community (<http://www.inclusive.vt.edu/>) for more information.

SPACE AND SUPPORT:

In some instances, ICAT can provide the digs[1] and peeps[2] to support of SEAD projects for the duration of the project award year.

As part of your proposal please highlight if you are requesting:

Assistance from ICAT staff: A team of ICAT specialists can become project team members for approved projects. ICAT specialists can support projects using various facets of the Cube

including spatialized sound, immersive environment, visualization, and motion capture.

ICAT Studios: ICAT is also home to a number of unique spaces and studios on campus that may be utilized for ICAT SEAD grant projects. This will be somewhere within the Creativity and Innovation District as needed and when available. For information about ICAT studios please visit <http://icat.vt.edu/studios/>. Please include requests for these spaces as part of your proposal document.

FUNDING INFORMATION:

Awarded funds will be available July 15, 2019. All project expenses must be posted to Banner within 30 days of the project's end date.

Unspent funds must be transferred back to ICAT within 45 days of the project's end date.

Funds will not be awarded for conference travel or food.

Funds can be used to buy out faculty time during the academic year or summer pending home department approval.

RESEARCH AREAS:

Proposals should involve two or more of the following areas represented by the Institute:

- Visual arts
- Architecture
- Life sciences/Agriculture
- Earth sciences
- Physical sciences
- Industrial design
- Performing arts
- Education
- Engineering
- Human sciences
- Humanities
- Social sciences
- Technology
- Computer science

GRANTS AVAILABLE:

Please note that by selecting a grant category on the coversheet and Google drive that it will NOT preclude you from being considered for other categories during the review process. We'll look to see if your proposal would be a better fit in another category, but please pick one as your first choice.

General:

A) Open Call for SEAD Projects - up to \$25,000

ICAT will fund several transdisciplinary projects, pilot or feasibility studies, or preliminary research. We're looking for project teams that involve two or more of the research areas listed in this document. Project duration should be set for one year beginning July 1, 2019. And keep in mind that failure IS an option here. So take a chance on something big... something great. Go ahead, put your peanut butter in the chocolate.

B) Open Call for Spring 2020 Exhibitions - up to \$1,000

Every spring, ICAT presents Open (at the) Source, an exhibition featured at the Moss Arts Center. ICAT: Open (at the) Source helps visitors to explore and experience the research and innovation that's happening within the Institute for Creativity, Arts, and Technology. At this event, visitors become partners in exploration with the students, faculty, and staff of ICAT and its creative community. It's awesome and we'd like you to make it awesome again next year.

New this year, ICAT is accepting proposals for exhibitions that will be featured in the spring of 2020 presentation of ICAT: Open (at the) Source. Proposals can include projects that are already completed or in process. Exhibitions will be featured in the Exhibition Corridor of the Moss Arts Center from April to May 2020 and should include the following:

Description for how the exhibition will fit into the hallway space (wall mounted exhibition, no floor space available)

Description of how the exhibition aligns with ICAT mission

Description of how visitors will interact with the exhibition

Description of budget need detailing equipment, materials, student time

C) Distinguished Fellow Summer Residency - up to \$10,000

ICAT is accepting proposals for visiting fellows for a summer residency. A successful proposal will include a plan for summer and future collaborative work between a Virginia Tech PI and the visiting fellow with the intention of building a sustained relationship. Visiting fellows may be from another university or company. Expectations of residency range from 2-4 weeks but there is flexibility in that range. Just propose a good idea. The funds will be transferred to the PI's home department to administer for the visiting fellow's travel, lodging, and honoraria.

D) Cube Project - up to \$25,000

ICAT is seeking proposals for transdisciplinary projects of any sort that will use and push the boundaries of the Cube (not literally though). The Cube is a four-story-high, state-of-the-art theatre and high tech laboratory that serves multiple platforms of creative practice by faculty, students, and national and international guest artists and researchers. The Cube is a highly

adaptable space for research and experimentation in big data exploration, immersive environments, intimate performances, audio and visual installations, and experiential investigations of all types. Projects may include, but are not limited to, simulation, data visualization/sonification, architectural visualization/sonification, visual and performing arts, user studies, etc. The Cube facilities include:

Motion capture

Immersive 360° projection

Tetherless, multi-user virtual and augmented reality with head mounted displays

Spatial audio

Project development support in the creation of immersive environments and the use of the facilities, including technological support, is available through ICAT staff. Significant development support may be built into the grant, substituting some portion of the grant for staff support. Preference will be given to projects whose team includes at least one affiliated faculty from the Center for Human Computer Interaction.

E) Matching Funds Project Support - up to \$20,000

In service of collaborative faculty research at the intersection of science, engineering, arts, and design, ICAT will consider proposals to provide matching funds for grants grounded in artistic outputs through proposals awarded to Virginia Tech faculty by the National Endowment for the Arts. Matching funds are often required for successful grant submission and we'd like to be able to support this type of work funded through the NEA. Please provide a copy of your submission as part of this request. Requests up to \$20,000 in matching funds will be considered.

Special Projects with College focused partnerships:

F) Smart Ag - Technologies, Data, Interpretation - Advancing Ag through technology innovation - up to \$25,000

The College of Agriculture and Life Sciences, in partnership with ICAT, is seeking proposals that advance agriculture through the use of innovative technologies, cyberbiosecurity of life science-based data, and/or facilitate the interpretation of large data sets for advancing the use of new technologies in agriculture. New technologies that promote the rapid collection of data or sensing of biological/biochemical/or physical observations with direct relevance to agricultural applications are of interest. Such technologies generate high volumes of data points but often the interpretation and use of the data are challenged because there are no standard protocols for managing, integrating, visualizing, translating and protecting the information and its use. Preference will be given to proposals that: (1) focus on new technologies, with large data sets, of relevance to agriculture and life sciences; (2) include CALS faculty as PI or Co-PI in an interdisciplinary, cross-college team; and (3) advance data analysis, visualization, and/or protection of data in a meaningful way for research outcomes and translation into potential application. We're looking for projects that include strong partnerships between CALS faculty and non-CALS faculty, especially ones that incorporate aspects of art and design. Cool, right?!

G) Special Project in Support of the College of Liberal Arts and Human Sciences - up to \$25,000:

ICAT and the College of Liberal Arts and Human Sciences are seeking proposals for projects that engage at least one faculty member from the College of Liberal Arts and Human Sciences as a PI or co-PI and at least one faculty from non-CLAHS disciplines. The research teams may have additional faculty from any discipline. Proposals in this category need to be integrative and interdisciplinary, exhibit strong potential for long-term impact, including securing secondary/external funding. Possible proposals might include attention to human-centered approaches to technology (a focus of the Center for Humanities) or other areas that connect humanistic methods to non-CLAHS approaches to research. Examples of CLAHS collaborations may look like:

http://icat.vt.edu/icat_projects/measuring-the-engineers-brain/

http://icat.vt.edu/icat_projects/real-pedagogy/

Special Projects focused on Creativity + Innovation Integration with Transdisciplinary Communities:

The Creativity + Innovation (C+I) community at Virginia Tech exists at the technology-mediated intersection of the arts, design, science, and engineering. Participants are uniquely empowered to focus on and to holistically explore opportunities while developing an integrative approach to thinking and problem solving. A growing group of new and experienced faculty supports this integration by re-imagining transdisciplinary research models by bringing together faculty from across the entire campus.

H) Creativity + Innovation Research Initiation Grant - up to \$10,000

ICAT will fund a research initiation grant to support a team of faculty led by a new faculty to Virginia Tech involved in the Creativity + Innovation community. The project should include faculty who have not previously worked together, with a pre-tenure or research C+I affiliated faculty members (hired in the last 18 months) leading the project. The project should involve summer release time to support team development (including an end of summer report). Successful projects should lead to a major proposal submission (internal or external) in the following year. This is a super cool way to get to work with someone new and different in support of university initiatives!

I) Creativity + Innovation Integrated Research and Education - up to \$25,000

We're interested in funding a project to create or improve teaching and learning experiences in the Creativity + Innovation community. Proposals should come from interdisciplinary teams with a plan to engage both faculty and students in practices and scholarship of quality teaching and learning. In addition to funding, the Center for Research in SEAD Education (CRSE) will help awardees construct research-based evaluation activities that support their ideas for teaching and learning that is interesting and impactful for future community members of C+I.

J) Intelligent Infrastructure for Human-Center Communities and Creativity + Innovation - up to \$25,000

Proposals for this project should be in collaboration with the Intelligent Infrastructure for Human-Centered Communities (IIHCC) destination area. Proposals must align with one or more of the IIHCC

thematic areas (energy, robotics and autonomous vehicle systems, smart design and construction, ubiquitous mobility) while supporting the transdisciplinary mission of ICAT and a focus on human-centered interactions. As this grant is co-sponsored by ICAT and IIHCC, the awardees are also expected to present at the IIHCC TRAIN Talks in the fall of 2020 and ICAT Creativity and Innovation Day in the spring of 2020 regarding research ideas and the outcomes.

K) Data and Decision and Creativity + Innovation - up to \$10,000

This cross Destination Area (DA) opportunity co-sponsored by the Creativity + Innovation SGA and Data & Decisions DA seeks interdisciplinary proposals that combine data experience with decision making. Our society is increasingly inundated with data of all sizes and sources requiring new strategies for conversion into information and ultimately, decisions. Data experience within the context of this proposal is broadly defined as immersion (e.g. virtual, mixed, or augmented reality, etc.), and (multi)sensory experience (e.g. visualization, sonification, etc.) of data by humans for the purpose of uncovering patterns and extracting as well as generating information that enables informed decisions. This call is particularly interested in combining uniquely creative approaches to data experiences developed and practiced by artists and designers, and a broad array of data rich scholarly and professional fields in search of new information discovery strategies, including (but not limited to) sciences, business, engineering, etc. A successful proposal should have a clear forward trajectory for the pursuit of external funding and the development of strategies that bridge data with decisions.

SUBMISSION PROCESS:

After you have entered your team data in the Google form, email a PDF copy of your submission including cover page with all necessary signatures to Holly Williams at hmccall@vt.edu by 5:00pm on February 15, 2019.

Please address each section in your proposal using Times New Roman 12 pt. font. Proposal should be limited to 5 pages including images. Proposals received without cover sheet signatures will not be considered.

SUBMISSION GUIDELINES:

Step 1: Google Form: <https://goo.gl/forms/MZIZQetsYIGuzr6D3>

Complete team information

- PI Name, Email, Home Department
- Team Member Names, Emails, Home Departments
- Bios and expertise of team members unique to the project
- Current and pending funding of the PI(s)
- Space requests (if needed)
- ICAT specialist request (if needed)
- Budget and Budget Justification
 - Total budget request
 - Budget justification and amounts requested for

Student time
Faculty salary time
Equipment
Materials and supplies

Step 2: Proposal Document (PDF submission to Holly Williams at hmccall@vt.edu): Please address each section in your proposal using Times New Roman 12 pt. font. Proposal should be limited to 5 pages including images.

Statement of Need/Project Description

Listing of research areas involved (see first page)
Statement of innovation
Linkage to ICAT mission and goals
Vision of how this will impact ICAT
Where project work will happen and if technical resources from ICAT are needed

Methods and Strategies

Describe the activities that will be conducted as part of your project

Goals and Objectives

Describe the overall outcome your project aims to achieve
Describe project outputs
Describe plans for future funding, exhibition, etc.

Plan for Evaluating Project Success

Describe how you will determine if your project has been successful
Describe anticipated outcomes and deliverables

Timeline

Timeline should begin after July 1, 2019 and end by June 1, 2020.

EXPECTATIONS OF FUNDED PROJECTS:

Funds: ICAT will transfer funds to the principal investigator's home department E&G fund upon acceptance of project. Any unspent funds should be returned to ICAT by May 15, 2020. Please have your departmental fiscal representative contact Lisa Jansen, Senior Grants and Contracts Manager, at ljansen@vt.edu or 231-1563.

Equipment: ICAT will have first option on the disposition of ownership of all material, supplies, and equipment. Equipment not owned or maintained by ICAT will be returned to the project PI with the understanding that ICAT will have access to said equipment pending request and availability.

Reporting: Project updates should be submitted to ICAT once a month during the project's duration. A final 2-3 page report will be submitted to ICAT no more than 30 days after project completion that describes project outcomes and how the funds were expended. A final report template will be provided by ICAT for completion and will be submitted to Lisa Jansen at ljansen@vt.edu.

ICAT Engagement: Representatives from each project are expected to participate in outreach and engagement, including giving an ICAT Playdate presentation to showcase the project as well as participation in the upcoming ICAT Creativity and Innovation Day in the year the project is funded. Projects may also be considered for display during ICAT's Open (at the) Source exhibition each spring, Virginia Tech Science Festival, Science Museum of Western Virginia, school tours, and kindergarten-to-college, as feasible and appropriate.

Resources: It is expected that the investigators have all resources necessary (space, equipment, etc.) to complete their project with the exception of the items and personnel requested in the proposal.

University policy: All university policies and procedures must be observed.

Logo: The official Virginia Tech/ICAT logo can be provided upon request.

Sample Credit Lines: The {title of project} has been made possible in part by a grant from Virginia Tech's Institute for Creativity, Arts, and Technology.

Publications: Please include the following language on any publications or publicity/marketing materials (VT news releases, etc.) stemming from ICAT funded research: "This work has been partially supported by a grant from the Virginia Tech Institute for Creativity, Art, and Technology."

Printed Materials: Printed acknowledgments and publicity materials are expected to carry the Virginia Tech/ICAT logo. The name of the institute in the logo must be legible and no smaller than 5 points. If the logo is not appropriate for the design, the credit line may be substituted in an appropriate type size. For large posters, etc., the point size should be correspondingly larger.

Films and Videos: An acknowledgment of support must be included at the beginning and end of each funded program and in all non-broadcast materials related to the project, including any elements of production re-purposed for distribution as digital media. The ICAT credit for film and television programs must be at least ten seconds long. ICAT is to be acknowledged in videos funded as part of an exhibition or other public programs, as well as in films broadcast on television. If the filmmaker intends to vary the design of the credits, ICAT must approve the new format that is created.

Audio and Radio Materials: An acknowledgment of support must be contained at the beginning and end of each program and in all non-broadcast materials related to the project. ICAT should be credited for radio programs, and for recorded audio tours of exhibitions.

Exhibitions/Workshops: The acknowledgment of support, the Virginia Tech/ICAT logo and the disclaimer language should appear on signage at the entrance to the exhibition or workshop, on brochures and catalogs, and on exhibition or workshop video materials and websites. These

requirements apply to the host site for the exhibition or workshop and to all participating venues. It is the grantee's responsibility to convey this requirement to all venues as part of the contract.

Digital Projects: When possible, hyperlinks must be made between the project and the ICAT website (www.icat.vt.edu). All digital projects (including games and apps) released via a third party are also expected to include an acknowledgment of ICAT support in the promotional description of the project (for example: in the 'Description' section of the Google Play or iTunes stores). Additionally, all digital projects must incorporate the following ICAT-specific keywords: Virginia Tech; Institute for Creativity, Arts, and Technology; ICAT

Websites: Hyperlinks must connect the project's website and that of the ICAT website (www.icat.vt.edu)

Public Events: At programs or public gatherings related to the project, ICAT must be acknowledged orally as a sponsor. Signage at the event must acknowledge ICAT support.

Promotion and Advertising: The design for all print, promotion, and advertising related to the project must be submitted to the director of marketing and communication for approval prior to implementation. All promotion must include the acknowledgment of ICAT support and the ICAT logo; the credit line should be used whenever possible. This includes publicity campaign materials, publications, advertisements, press kits, press releases, wall panels, educational programs, special events, and receptions. Unless there is an agreement with the ICAT Director to the contrary, all press releases and media pitching will be carried out by ICAT's marketing office. The official spokesperson for ICAT is Director Ben Knapp.

Print and Electronic Use: Summaries, along with images, clips, screen shots, or the like of all ICAT-funded projects must be made available to ICAT for use in its publications and on its website.

REVIEW CRITERIA:

The proposals will be reviewed by the Institute Director, Associate Director, and ICAT Senior Fellows, and then evaluated based on the following criteria:

- Intellectual merit and innovation;
- Interdisciplinary nature of the team
- Correlation to the mission of ICAT and its studios;
- Broader impact of the project;
- Potential channels to advance the proposed research
- Timeline
- Clear outcome and deliverables
- Alignment with project categories and/or themes

After the proposals are reviewed, a member of the proposal team may be asked to make a brief presentation to the review committee.

Awards will be announced by April 12, 2019.