



## STUDENT SUSTAINABILITY COMMITTEE

# Funding Application – Student-Led Projects (Under \$10K)

### ***Funding Criteria***

#### **A. General Rules**

1. Students, faculty, and staff are encouraged to submit requests for funding. Student-led projects require a faculty or staff sponsor in order to have funds awarded.
2. Funding can only go to university-affiliated projects from students, faculty, staff, and departments.
3. All SSC projects must make a substantial impact on students. This may be a direct impact or an impact through education and engagement. All SSC funding is 100% from student green fees, so the projects funded by the students must benefit them.
4. SSC encourages innovation and new technologies – creative projects are encouraged to apply.
5. Unless a type of expense is specifically listed below as having restrictions, SSC can generally fund it. The items referenced below should not be taken as comprehensive list.

#### **B. Things SSC Can Fund, On A Case-By-Case Basis**

1. SSC can fund feasibility studies and design work; however, it must work toward ultimately addressing a sustainability need on campus.
2. SSC can fund staff positions that are related to improving campus sustainability. Strong preference will be given to proposals receiving matching funding from departments and/or plans for maintaining continuity of the position after the end of the initial grant.
3. SSC can fund outreach events with a central theme of sustainability, provided their primary audience is the general campus community.
4. SSC discourages funding requests for food and prizes but will consider proposals on a case by case basis that prove significant reasoning.
5. SSC can fund repairs and improvements to existing building systems as long as it works toward the goal of improving campus sustainability; however, a preference is shown to projects utilizing new or innovative ideas.
6. SSC can provide departments with loans for projects with a distinct payback on a case by case base. Loans will require a separate memorandum of understanding between SSC and departmental leadership pledging to repay the award in full and detailing the payback plan.

#### **C. Things SSC Will Not Fund:**

1. SSC will not fund projects with a primary end goal of generating revenue for non-University entities.
2. SSC will not fund personal lodging, food, beverage, and other travel expenses.
3. SSC will not fund any travel expenses.
4. SSC will not fund tuition or other forms of personal financial assistance for students beyond standard student employee wages.

**Your funding application should include this application and any letters of support.**

Please submit this completed application and any relevant supporting documentation by the deadline listed on the SSC website to [Sustainability-Committee@Illinois.edu](mailto:Sustainability-Committee@Illinois.edu). The Working Group Chairs will be in contact with you regarding any questions about the application. If you have any questions about the application process, please contact the Student Sustainability Committee at [Sustainability-Committee@illinois.edu](mailto:Sustainability-Committee@illinois.edu).

## General & Contact Information

**Project Name:** Soil boring database for UIUC campus

**Total Amount Requested from SSC:** \$7,500

**Project Topic Areas:**  Land & Water  Education  Energy  
 Transportation  Food & Waste

**Applicant Name:** Wenzhe (Jason) Mi

**Campus Affiliation (Unit/Department or RSO/Organization):** Environmental Sustainability, College of Liberal Arts and Sciences (LAS)

**Email Address:** wmi2@illinois.edu

### Check one:

- This project is solely my own **OR**  
 This project is proposed on behalf of (name of student org., campus dept., etc.): Facilities & Services and Prairie Research Institute

### Project Team Members

Name	Department	Email
Wenzhe (Jason) Mi	College of LAS	wmi2@illinois.edu
Beth Leitz	Facilities & Services	bleitz@illinois.edu
Andrew Anderson	Prairie Research Institute	acandrsn@illinois.edu
Andrew Stumpf	Prairie Research Institute	astumpf@illinois.edu

### Student-Led Projects (Mandatory):

Name of Faculty or Staff Project Advisor: Andrew Anderson

Advisor's Email Address: acandrsn@illinois.edu

### **Financial Contact (Must be a full-time University of Illinois staff member)**

Contact Name: Beth Leitz

Unit/Department: Facilities & Services

Email Address: bleitz@illinois.edu

## **Project Information**

*Please review the proposal materials and online content carefully. It is highly recommended you visit a working group meeting sometime during the proposal submission process.*

### **Please provide a brief background of the project, its goals, and the desired outcomes:**

*We want to know: What is your project? What does it concretely produce, accomplish, or solve? Why is this project needed on campus?*

Since the 1930's, faculty and staff in the Department of Civil and Environmental Engineering (CEE) and the Illinois State Geological Survey (ISGS) in the Prairie Research Institute have worked with Facilities & Services (F&S) in characterizing the underground geological and engineering conditions at new building sites. Together with the F&S' consultants and developers these campus teams have been influential in the save design and construction of many notable buildings on campus (e.g., State Farm Center [Assembly Hall] and Krannert Performing Arts Center). For every new construction project, set of soil borings are taken to describe the geological materials and geotechnical parameters where components of the structure foundation will be constructed. Throughout the 90+ years, each of these three campus units have retained their own records of these soil borings and associated site descriptions and design interpretations, but there is not one central database for all this information. F&S is the primary repository for soil boring and engineering documents for campus projects, but these records are not available in a geospatial map service that can be viewable by campus staff and faculty. The ISGS has a partial record of soil borings on campus that are available through the ILWATER mapping project (<http://isgs.illinois.edu/ilwater>). CEE has archived scans of their documents in the IDEALS digital repository for research and scholarship ([https://www.ideals.illinois.edu/handle/2142/99654/browse?rpp=20&sort\\_by=1&type=title&offset=0&etal=-1&order=ASC](https://www.ideals.illinois.edu/handle/2142/99654/browse?rpp=20&sort_by=1&type=title&offset=0&etal=-1&order=ASC)).

The proposed project will bring together all the soil boring records from campus building projects into one database that will be made available through the ISGS ILWATER mapping project. I will assist F&S staff and ISGS scientists in developing and building the database and map project. Having a complete database available to campus will make future building projects more efficient and save costs from taking unnecessary soil borings. For example, the use of historical underground information can be used to inform the site conditions for new projects reducing the number of additional soil borings needed for building designs.

### **Where will the project be located? Are special permissions required for this project site?**

*If special permission is required for this location, please explain and submit any relevant letters of support with the application. SSC cannot fund projects without prior location approval.*

**I will work at the Prairie Research Institute and will be given access to records at ISGS and F&S.**

### **Other than the project team, who will have a stake in the project? Please list other individuals, groups, or departments affiliated directly or indirectly by the project. This includes any entity providing funding (immediate, future, ongoing, matching, in-kind, etc.) and any entities that benefit from this project.**

*Please attach letters of commitment or support at the end of the application.*

All campus units and consultants and contractors involved in new building projects on campus.

### **How will this project involve and/or benefit students?**

*This includes both direct and indirect impact.*

**The database will be an instrumental source of information for the construction of new buildings that students use and live at. The data will also be available to students, faculty and staff for research projects.**

### **What are your specific outreach goals? How will this project inspire change at UIUC?**

**The specific goal is to update the soil boring records to make them findable and useable. This may inspire Champaign, Urbana, and Savoy to collaborate with the project team to later develop a community-wide database that would be a model nationally. The ISGS is leading an effort of state geological surveys to develop a national engineering geology database. This effort would promote the efficient use of campus funding and be an example of how Big Data is used for sustainable development.**

**How will the project improve environmental sustainability at the Urbana-Champaign campus?**

Having a comprehensive, campus-wide database available would support environmental sustainability in the design and construction of new buildings, and ensure the required number of new soil borings are done.

**If applicable, how does this project impact environmental injustice or social injustice?**

**Not directly, but all units on campus would have access to the same data.**

## Scope, Schedule, and Budget verification

**What is the plan for project implementation? Describe the key steps of the project including the start date, target completion date, target date for submitting a final report, and any significant tasks or milestones.**

*Please be as detailed as possible.*

June 1, 2022 - Meet with F&S and ISGS staff/scientists to identify datasets. Acquire data from F&S consultants.

June 17, 2022 - Complete training on gINT software.

July 29, 2022 - Process all datasets using gINT software

September 30, 2022 - Complete digitization of hard-copy data and locate boring sites using ArcGIS software.

October 28, 2022 - Data made available through ISGS mapping project.

**List all budget items for which funding is being requested. Include cost and total amount for each item requested.**

*Please be as detailed as possible.*

*Salary: Undergraduate Research Assistant (400 hrs @\$15/hr) - \$6,000*

*Supplies: Software - gINT Geotechnical and Geoenvironmental Software - \$1,500*

**If the project is implemented, will you require ongoing funding? What is the strategy for supporting the project in order to cover replacement, operation, or renewal costs?**

*SSC provides funding on a case by case basis and should not be considered as an ongoing source of funding*

*No ongoing funding needed.*

**Please include any other obtained sources of funding. Have you applied for funding elsewhere?**

*Please attach any relevant letters of support as needed in a separate document.*

In kind support, scientist and staff time from F&S and ISGS.

**Have you applied for funding from SSC before? If so, for what project?**

No

**How will you bring awareness and publicize the project on campus? In addition to SSC, where will information about this project be reported?**

Publish results of project via F&S and ISGS websites, campus news outlets. Possibly publish academic paper on project methodology. Database will be part of national repository managed by the US Geological Survey.