



STUDENT SUSTAINABILITY COMMITTEE

Funding Award and Acceptance Letter

December 6th, 2021

Project: **Low-cost Inspection and Sustainable Repair of Campus Pavements**

Dear **Nishant Garg**,

On behalf of the University of Illinois at Urbana-Champaign Student Sustainability Committee (SSC), we would like to thank you for initiating a project that improves the sustainability of our campus. SSC is pleased to inform you that your project will receive **\$76,000.00** in grant funding.

In order to remain eligible for this award, you must agree to the following conditions:

1. The project must be completed within two years. A final report of all work completed should be provided to the SSC Assistant Director by **December 6th, 2023**.
2. Project status updates and detailed account statements must be provided at the end of each semester, in the method requested, until the project is completed.
3. The Contact Person will be individually responsible for all official communication and the execution of this agreement.
4. The awardee will take the appropriate steps to create a CFOP with OBFS UAFR University Accounting Services. The CFOP provided for this award shall strictly be used for the money awarded in this proposal.
5. Any substantial modifications to project scope, budget, or timeline must first be approved by SSC. These requests must be submitted in a formal letter to the Chair and the Assistant Director.
6. All projects will be expected to follow campus policies and procedures as well as any applicable State and Federal laws.
7. SSC reserves the right to revoke funding if the project does not comply with the terms and conditions outlined in this letter.
8. Any press releases or educational/promotional materials involving the project should acknowledge SSC funding.
9. Any signage involving the project or events surrounding this project should include SSC's logo and/or a statement of which fee funded the project. Projects must coordinate with SSC to ensure promotion appropriately highlights the SSC's contributions to the project.

If you agree to the terms and conditions for the funding, please sign on the designated line at the bottom of this letter. If you have any questions regarding these requirements please contact the SSC, at [sustainability-committee@illinois.edu](mailto:sustainability-committee@illinois.edu). You will be notified when the Institute for Sustainability, Energy, and Environment and Vice Chancellor for Student Affairs officially approves this project. Again, thank you for your interest in improving the sustainability of the University of Illinois at Urbana-Champaign. We look forward to working with you in the future.



STUDENT SUSTAINABILITY COMMITTEE

**SSC Signatories**

*Jack Reicherts*

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Jack Reicherts, Chair  
Student Sustainability Committee

**Awardee Signatory**

*Nishant Garg*

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Dr. Nishant Garg  
Applicant

**Faculty or Staff Project Advisor  
(for Student-Led Projects)**

N/A

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[First and Last Name]  
Faculty/Staff Project Advisor

**iSEE Signatory**

*Madhu Khanna*

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Dr. Madhu Khanna, Director  
Institute for Sustainability, Energy & Environment

**Student Affairs Signatory**

*Dr. Danita M. B. Young*

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Dr. Danita Brown Young, Vice Chancellor  
Division of Student Affairs



STUDENT SUSTAINABILITY COMMITTEE

## Project Information

**Project:** Low-cost Inspection and Sustainable Repair of Campus Pavements

### Funding Source:

Cleaner Energy Technologies Fee (302571)

Sustainable Campus Environment Fee (303692)

**Funding Amount:** \$76,000.00

**Receiving Campus Unit:** Department of Civil Engineering

**Unit Financial Contact:** Heidi Thiele

**E-mail:** hlgreen2@illinois.edu

### Project Description:

On the UIUC campus, the total pavement network is approximately 1.2 million ft<sup>2</sup>. Monitoring this pavement network is commonly done through condition assessments to maintain their sustainability and structural integrity [1]. It has been proven that early detection of cracks is needed for essential maintenance tasks. However, the traditional inspection techniques require experienced field personnel to classify the cracking, which comes at a cost. Furthermore, the inspection quality is primarily controlled by how the field personnel is trained [2], [3]. Therefore, there is potential in having pavements inspected using robust, low-cost smartphone and drone-based imaging techniques independent of the skills of the operator. Secondly, frequent repairs of these pavements are not sustainable from a cost and environmental point of view and hence durable sealants need to be prepared for long-term sustainability.

Project's deliverables:

- 1) New, faster, and cheaper technology based on smartphone and drone imaging for cracks can be done via involving the campus students.
- 2) New sustainable and durable sealant for the rapid repair of the pavement cracks.



STUDENT SUSTAINABILITY COMMITTEE

This proposal directly funds:

- Sealants
- Drone
- Cameras
- Publications
- Personnel & wages
- F&S construction services
- GIS image updates