



STUDENT SUSTAINABILITY COMMITTEE

Funding Award and Acceptance Letter

April 24, 2017

Project: Fly Ash Phosphorous Filtration

Dear Mx. Bhattarai:

On behalf of the University of Illinois at Urbana-Champaign Student Sustainability Committee (SSC), I would like to thank you for considering the funds raised by the Sustainable Campus Environment Fee to implement a project that improves the sustainability of our campus. SSC is pleased to inform you that we are recommending to the Institute for Sustainability, Energy, and Environment (iSEE) that your project **receives \$8,350 in grant funding**.

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

1. A final report of all work completed should be provided to the SSC Program Advisor by May 31, 2019. Project status updates and detailed account statements must be provided at the end of each semester until the project is completed.
2. The CFOP provided for this award shall strictly be used for the money awarded in this proposal.
3. Project must adhere to the scope of work and funding as defined in the attached project summary.
4. 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 Program Advisor.
5. All projects will be expected to follow campus policies and procedures as well as any applicable State and Federal laws.
6. SSC reserves the right to revoke funding if the project does not comply with the terms and conditions outlined in this letter.
7. Any press releases or educational/promotional materials involving the project should acknowledge SSC funding. 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.
8. Projects must participate in the Campus Sustainability Symposium at least once before June 30, 2020.

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 Chair, Paul Couston, at pcousto2@illinois.edu or the SSC Coordinator, Micah Kenfield, at kenfield@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

Paul Couston

Paul Couston, Chair
Student Sustainability Committee

Ashley Yu

Ashley Yu, Treasurer
Student Sustainability Committee

Awardee Signatory

Rabin Bhattarai

Rabin Bhattarai
Applicant

iSEE Signatory

Evan DeLucia

Dr. Evan DeLucia, Director
Institute for Sustainability, Energy & Environment

Student Affairs Signatory

Renee Romano

Dr. Renee Romano
Division of Student Affairs



STUDENT SUSTAINABILITY COMMITTEE

Project: Fly Ash Phosphorous Filtration

Funding Source: Sustainable Campus Environment Fee

Funding Amount: \$8,350

Receiving Campus Unit: Agricultural and Biological Engineering

Primary Contact: Rabin Bhattarai

E-mail: rbhatta2@illinois.edu

Project Description:

Subsurface (tile) drainage has helped to sustain the productivity of our farm lands by draining excess water from the field. Excess nutrient losses from our tile-drained agricultural fields have contributed to several water quality issues in the region including the formation of hypoxic zone in the Gulf of Mexico. It has been well-documented that tile drainage is responsible for highly soluble nitrate loss but recent studies have demonstrated that it also contributes to dissolved phosphorus loss from the agricultural fields.

This project aims to develop ceramic pellets using fly ash and other additives with minimum or no heavy metal leaching. The specific objectives of this proposed research project are to: a) optimize the proportion of fly ash and other additives for high phosphorous removal and limit heavy metal leaching, b) conduct laboratory experiments to analyze the performance of pellet for dissolved phosphorous reduction.

This proposal directly funds:

1. Equipment rental and use charges
2. Supplies and Chemicals
3. Student Hourly Labor