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1304 W. Pennsylvania Avenue
Urbana, IL 61801

Subject: Request to Support Re_Home wall rehab and siding

Date: November 6, 2020

Dear Committee members,

I write to strongly support the proposal to refurbish the Solar Decathlon Re_Home on the ABE farm. The facility was a key enabler for significant advances made to autonomous robotics at UIUC, and is shaping up to be a key focal point in University research efforts towards sustainable and Climate Positive farming.

I serve as the Chief Scientist of the Illinois Autonomous Farm (IAF). During the 2020 growing season, a team of researchers made significant progress towards creating AI algorithms for autonomous robots that could help make farming more sustainable. 5 multi-disciplinary projects, ranging from vision based autonomous navigation, to robots harvesting berries were pursued at the IAF this year.

The Re_Home served as the primary base for the students working on these projects. We strongly believe that it was because of the Re_Home that they were enabled to make significant progress, since they had an air conditioned place to rest, refresh, and regroup. Leveraging this space, they were able to rapidly iterate between software development sprints, and field-testing. Typically, field robotics research is slow and painful, since problems encountered at the field must be fixed back in the lab. The Re_Home completely flipped this around by providing a solid base of operations.

Furthermore, the Re_Home plays a critical role in ongoing and planned projects in climate positive and sustainable agriculture: It is a great showcase to demonstrate use cases for electric agricultural equipment charged using in-situ solar power. In particular, with the solar panels on the Re_Home, all of the robots utilized by the team in 2020 were charged on the field using solar power. From this perspective, the Re_home and the Illinois Autonomous Farm become crucial facilities for future projects involving minimizing use of fossil fuel and showcasing sustainable use of energy on farm.

In summary, my group and the researchers using the Illinois Autonomous Farm are extremely grateful for the Re_Home, and are happy to keep using it and keeping the insides maintained. However, the house is in poor condition, and the support requested in this proposal would go a long way in improving the quality and use cases of this highly valuable resource on campus.

A handwritten signature in black ink, appearing to read 'Girish Chowdhary', written in a cursive style.

Girish Chowdhary