

Intellectual Merit Criterion**Overall Assessment of Intellectual Merit**

Very Good

Explanation to Applicant

The proposed research addresses the need to have better structural systems. Novel approach.

Broader Impacts Criterion**Overall Assessment of Broader Impacts**

Excellent

Explanation to Applicant

He wants to reach out to underrepresented groups, outreach focused.

Summary Comments

Qualified applicant, good research topic, innovative.

Intellectual Merit Criterion**Overall Assessment of Intellectual Merit**

Very Good

Explanation to Applicant

The student has a great undergraduate academic standing. He displays good technical background, and shows great passion for structural engineering. His undergraduate education includes a mix of engineering and liberal arts, a well rounded student. The student presents a well developed research plan for using origami principles in curved crease deployable structures within a multi-physical framework. In essence, he wants to create a framework to better understand the behavior of the deployables. The student received 3 recommendations with a highly rated recommendation from his current graduate school advisor.

Broader Impacts Criterion**Overall Assessment of Broader Impacts**

Excellent

Explanation to Applicant

An excellent statement on broader impacts. It is multi-faceted in technology and in education. He would reach out to younger upcoming engineers, underrepresented groups, LGBTQ communities, develop and present a middle school workshop program for girls, mentor undergraduate researchers and exposing them to the technology of his work.

Summary Comments

Great academic student with good technical background related to his proposed research. A well proposed and thought out proposal that could lead to innovations in understanding origami principles in deployable structures. A well rounded student in engineering and liberal arts, with an outstanding broader impacts in educational reach to several different groups.

Intellectual Merit Criterion

Overall Assessment of Intellectual Merit

Excellent

Explanation to Applicant

The applicant has a great research background, including non-destructive testing experience at Infrasense and research assistantship experience at the deployable structures lab. The documents are well detailed and includes meritorious and realistic goals and objectives. As such, the applicant has a great potential to advance the current knowledge for the analysis and design of deployable structures.

Broader Impacts Criterion**Overall Assessment of Broader Impacts**

Excellent

Explanation to Applicant

The deployable structures has a broad applicability from floodgates to buildings. The applicant has also various previous outreach experiences involving public and younger students. The proposed outreach activities are rich, including underrepresented groups and young engineers.

Summary Comments

Applicant's background, previous research and personal experience, and the proposed study provides an excellent potential for achieving the overall personal and research objectives. This reviewer considers this application as highly meritorious.