

Abstract:

Utilization of extended reality as a method to explore design learning, industry design decision justification, and interactions and project outcomes created and tested via mixed and augmented reality methods.

This research addresses the topics of extended reality (XR) focusing on mixed reality (MR) and augmented reality (AR) as methods used to create and evaluate concepts created by design faculty and students for competition, industry, and course projects. It explores the role designers' play in this developing technology and how these technologies can bridge STEAM disciplines.

There are three objectives for this grant. First, the creation of pop-up materials that explore the possibilities of AR via smart devices. Second, the creation and evaluation of housewares products that are created and evaluated via the MR headset. Third, is the creation of enhanced and interactive content related to selected gallery exhibition pieces. This objective will utilize both AR smart device and MR headsets.

This research will result in faculty and students gaining experience creating and presenting AR material to professionals and other students. The XR material is essential for preparing students for employment success and establishing SIU in the forefront of this growing industry.