The Department of Environmental Studies at San José State University is pleased to present a public Master of Science Thesis Defense

**Wednesday, November 16, 2022**
**12:00 – 1:15 PM**
In person: ENVS Garden (by Washington Square Hall)
*or via Zoom* [https://sjsu.zoom.us/j/5858275843](https://sjsu.zoom.us/j/5858275843) pw: ENVS@SJSU

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**Effectiveness of virtual reality as a climate change communication tool for Latinx communities in the City of Santa Cruz.**

**Abstract:** Coastal cities along the 840 miles of the California coast are all grappling with the impacts of sea level rise (SLR) and working on strategies to adapt to coastal threats like flooding and coastal erosion. The City of Santa Cruz, for example, projects over $1 billion worth of damage to properties and infrastructure by 2100 due to SLR. Historically marginalized groups, such as the Latinx populations, are disproportionately vulnerable to SLR, so they need to be prioritized in coastal adaptation plans, but they are often ignored. Cutting-edge technology, such as Virtual Reality (VR), can be used to increase stakeholder engagement and awareness about coastal risks, but little is known about its effectiveness in Latinx communities. The goal of this research is to bridge that gap in knowledge by analyzing the efficacy of the SLR Explorer Santa Cruz VR application, developed to increase awareness of SLR and increase public engagement in Santa Cruz adaptation efforts. This work relies on data collected during four focus groups with Latinx and non-Latinx groups from Santa Cruz and three key informant interviews with developers of the VR application to assess efficacy of VR technology in helping Latinx communities better understand flood and coastal risks and visualize adaptation solutions. Results show that although the VR application increased understanding of coastal and flood risks and helped envision coastal adaptation solutions for all users there were three aspects in which the VR application needs to improve its effectiveness and inclusiveness: a) better understand Latinx past experiences with coastal hazards and the influence on their perception of this issue, b) capture Latinx specific forms communication about flood and coastal risks, and c) improve quality and quantity of visualization of adaptation solutions.

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