







# Investigating the Role of Virtual and Augmented Reality for Environmental Sustainability

### **Background**

As Virtual Reality (VR) and Augmented Reality (AR) devices become increasingly consumer-friendly, their prevalence in everyday life is anticipated to rise. Initially, VR and AR's role has been predominantly educational, focusing on enlightening users about environmental issues. However, recent research suggests that the capabilities of VR and AR extend far beyond current applications, with their full potential yet to be tapped. This untapped potential opens up a significant avenue for exploration within the Sustainable HCI community. It raises the question of how VR and AR can be utilized not just for education but to foster cognitive, emotional, or behavioral engagement with environmental sustainability topics. The immersive nature of VR and AR offers an unparalleled opportunity to create profound connections with sustainability issues, potentially driving stronger and more meaningful actions towards environmental preservation.

#### **Approach**

Based on an initial literature survey relevant use cases for VR and AR are identified. Building on this knowledge, a software prototype is implemented to explore the relevance of virtual immersion for the identified use case.

Based on Bachelor or Master level the scope of the thesis is adapted.

#### Contact



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## Focus in this project

Software Prototype
Virtual/Augmented Reality
User Evaluation