

# SPIRE-EIT 2023

Summer Program for Interdisciplinary Research and Education – Emerging Interface Technologies

**Project:** Virtual Research Community (VRComm)

**Short Title:** VRComm

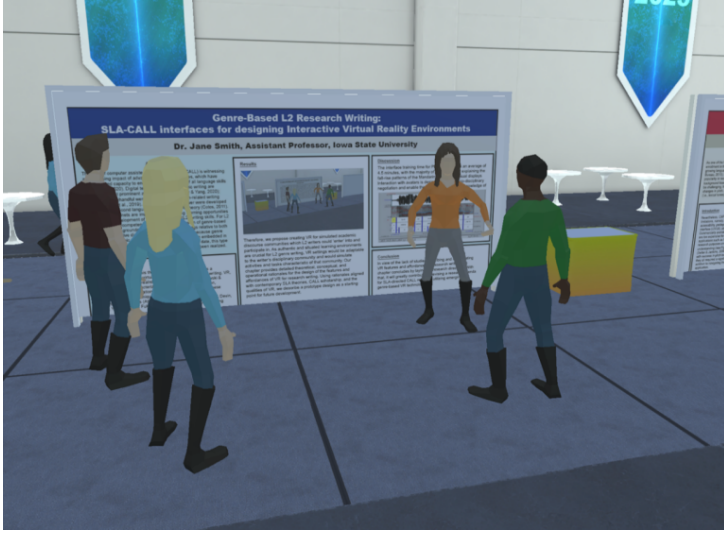
**Faculty:** Michael Dorneich, Professor in Industrial & Manufacturing Systems Engineering

**Graduate Student Mentor:** April Tan (apriltan@iastate.edu)

**REU Interns :** Allison Arnold, Nadya Konadu, Ayman-Yereem Kone

**Description:** Many students struggle to learn how to write research papers, particularly if English is not their first language. There are different styles or genres of music and movies, and similarly, writing has its own set of genres. Academic research writing is one particular genre, just as fiction novels, instruction manuals, screenplays, and stockholder reports each has their own writing style or genre. This project proposes to use VR to help English language learners learn the genre of research writing.

A virtual environment might help because learning a writing genre is easiest when immersed in the community of people who practice that genre. Research has shown that when writers understand the *why* (values, beliefs, socio-rhetorical purpose) of the community, their *what* (stylistic rules and techniques in writing) significantly improves.



Students on this summer project will help create VR environment (VRE) interactions that simulate some of the activities and tasks of the academic research community. Specifically, writers will be immersed at a 3-day academic poster conference. These tasks include asking and answering avatar questions, networking, and presenting a research poster to an avatar audience. Students will be involved in the design, implementation, and pilot evaluation of the VRE on a group of participants. The VRE will be revised based on the analysis of the feedback. Additionally, generative AI will be experimented with in generating the scripts and behaviors of influential scholars in the creation of the avatars.