

Abstract:

This presentation demonstrates how NASA is using consumer VR headsets, game engine technology and NVIDIA's GPUs to create highly immersive future training systems augmented with extremely realistic haptic feedback, sound, additional sensory information, and how these can be used to improve the engineering workflow. Include in this presentation is an environment simulation of the ISS, where users can interact with virtual objects, handrails, and tracked physical objects while inside VR, integration of consumer VR headsets with the Active Response Gravity Offload System, and a space habitat architectural evaluation tool. Attendees will learn how the best elements of real and virtual worlds can be combined into a hybrid reality environment with tangible engineering and scientific applications.