

## **Virtual Reality and Robotics: A Gateway to STEM Outside of the Classroom**

Daniel Phelps, York College

In 2015, our program received a NASA funded grant to research and build a robot that simulates mining and extracting ore on the surface of the Moon and Mars. Today, we are using those skills by building advanced systems to control VR cameras to produce a wide variety of immersive storytelling experiences. Associate Professor Daniel Phelps will showcase the unique toolset that has been created with undergraduate researchers and assistance from the New York Space Grant Consortium and NASA.

This presentation will focus on the R&D efforts of the interdisciplinary team of robotics students and creative storytellers at York College. Showcasing the customized VR toolset created for non-fiction storytelling in VR, this hands-on demonstration will explore the world of highly maneuverable VR mecanum platforms and off-road telerobotically controlled camera control systems created at York College. This presentation will be the first time these systems have been showcased to the public and mark a launch for The Future American Retrospective Project.