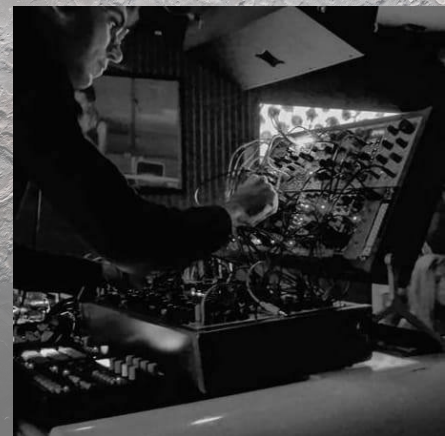


Capturing the Moon and Beyond: Digital Twins for Space Exploration

The future of space exploration is undergoing a paradigm shift. With the advent of heavy lift launch capabilities and increasing activity from commercial partnership. New enabling technologies and capabilities are needed to support continued exploration and an eventual sustained human presence on the Moon to propel us on to Mars. Here we explore the use of digital twins to provide scientific understanding, resource exploration and astronaut training for the Lunar and planetary surfaces. As part of a robotic precursor mission for future human missions, we are sending a combination time-of-flight and RGB camera to the Lunar surface aboard the Intuitive Machines 2 mission. This camera will provide us with never-before-seen high-resolution (sub-cm) 3D images of the unique landscape in Moon's south polar region. We will use these images to build a digital twin of the Lunar surface to enable humanity's permanent presence on the Moon and develop the technology to continue on to Mars.



Thursday, February 27th

3:30 - 4:30 p.m.

Remote | See Email or Website for Zoom Link

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