

Earth observation advancements enabled by cubesat imaging spectroscopy

*Sheldon Dean Drobot¹, Jason Hyon², Pantazis Mouroulis², Ron Glumb¹, Peter Griffith¹

1. Harris Corporation, 2. NASA JPL

Given the large spatial scale and heterogenous nature of Earth's atmosphere and surface, remote sensing plays a fundamental role in monitoring, understanding, and predicting our complex world. Imaging spectroscopy (also known as hyperspectral) sensors represent an evolution of multispectral remote sensing where data are acquired over narrower spectral ranges. This allows for more precise geophysical extraction of key earth, ocean, and atmosphere variables. In this presentation, we outline recent work from a NASA JPL –Harris Corporation partnership to develop a cubesat-class imaging spectroscopy constellation. Basic specifications, applications, and recent progress will be summarized.

Keywords: hyperspectral remote sensing, cubesats, constellations