



## **SEMINAR SERIES PRESENTATION**

**Thursday, July 25<sup>th</sup> – SPoRT VCL – RM3027 – 1:00p**

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Huntsville, Alabama**

### **Earth Observations from the International Space Station: The Teledyne “Multiple User System for Earth Sensing” (MUSES)**

The International Space Station (ISS) is a unique and enabling asset for remote sensing to support many classes of earth science investigations, commercial earth observations, and humanitarian support. Designed as a research laboratory in low earth orbit, the ISS provides a cost efficient observing platform with an orbit that affords near-global landmass coverage from a low altitude with frequent overpasses and short repeat times. Moreover, the well-defined interfaces, resources, and operations processes facilitate broad utilization by investigators and instrument developers.

To more fully utilize the potential of ISS for earth remote sensing, Teledyne is developing the Multiple User System for Earth Sensing (MUSES). MUSES is an inertially stabilized pointing facility that will accommodate multiple plug-and-play instruments, be capable of robotic instrument servicing, and nullify ISS attitude motions while orienting instruments at targets on the surface of the earth.

MUSES is being developed by Teledyne Brown Engineering under a cooperative agreement with the NASA ISS National Lab Program Office where Teledyne will own, operate, and sustain MUSES in order to foster commercial utilization of the ISS NLO. This briefing will provide an overview of the MUSES system and operations overpass assessments, and preliminary pointing performance analyses.