TECHNOLOGY TRANSFER

Interest Exploratory Note

Optical Imaging System

An Advanced Technology from ISRO

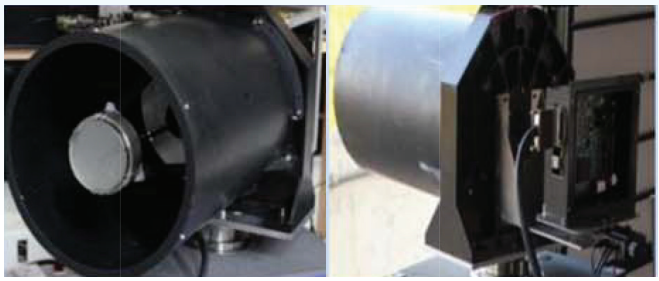
- Useful under twilight and mid-day lighting conditions
- Sampling Resolution: 2cm at 5000 m
- FOV: 0.46° x 0.46°
- 200 mm RC Telescope
- Operating Wavelength range: Vis-VNIR
- Frame rate: 30 Hz (Rolling shutter)
- Programmable Exposure period
- Includes Focusing Mechanism
- Camera Head control, video data acquisition, NUC correction, and image visualization s/w with intra-scene dynamic range adjustment for 2kx2k Si based focal plane array
- Sturdy Mechanical Structure
- Weight: <10 kg

Potential Applications

- Imaging during day time and twilight condition
- Scientific Studies, Astronomy
- Applications requiring high intra-scene dynamic range up to 80 dB

Possible Customizations

- Multi-band (with frequency selective beam splitter or filter wheel), including Infrared spectrum, target imaging using suitable focal plane array
- Frame rate enhancement up to 100 frames/s
- Temperature compensated automatic focus adjustment
- RGB Color imagery with incorporation of color data processing pipe
- Nighttime imaging with external illuminator



Avg: 5000 photons | Avg: 50 photons

Avg: 5000 photons | Avg: 15 photons

(Locally processed with digital filter)

Department of Space has authorised NSIL for Technology Transfer of Optical Imaging System to suitable entrepreneurs/ Industry in India. Interested Parties may please fill the enclosed form and send by email to contact-nsil@isro.gov.in