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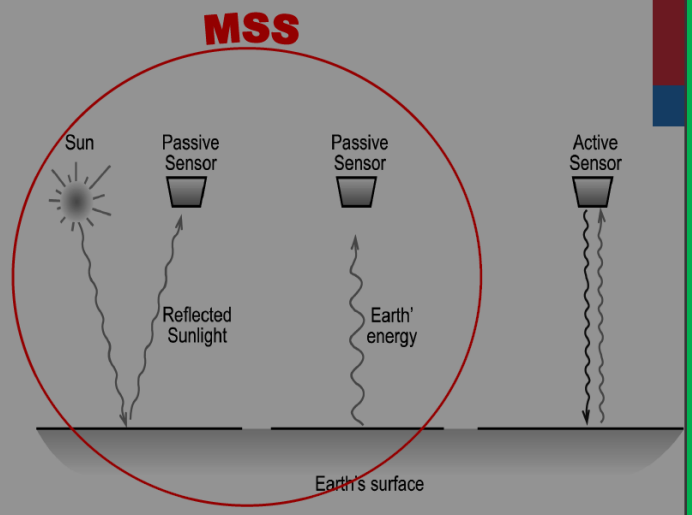
Passive / Active sensors

- Passive can sense
  - reflected light
  - thermal emission (TIR)
  - gamma ray
  - passive microwave
- Active can operate at night



Preparation of Plans-Scanners

Targets & Main Objective

- **Laser Scanning**

Overall Objective

Introduce students to new technology of acquiring survey data for plan preparations

Introduction to Laser Scanning.

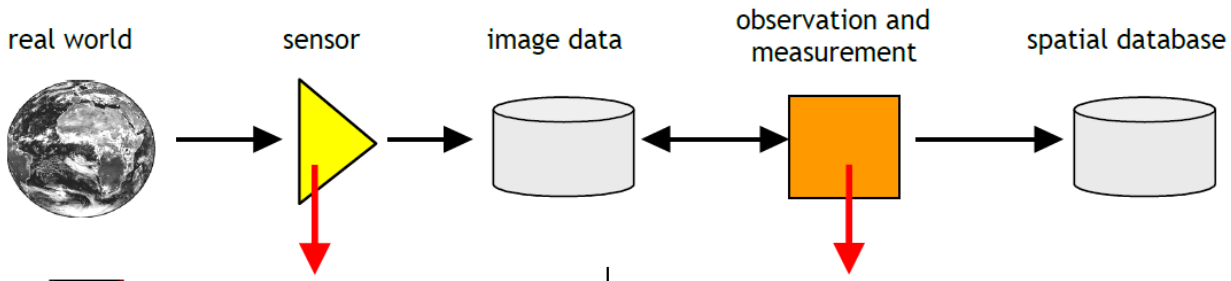
Laser scanning is an observation technique based on remote measurements.

The scanner is stationed at a distance from the object being measured.

This results into images that are analysed and manipulated through GIS techniques to produce maps

Introduction to Laser Scanning.

Remote Sensing Based Approach



- Sensors & Platforms
  - MultiSpectral Scanning
  - Aerial Photography
- Geometric Aspects
- Image Visualisation
- Visual Interpretation
- Image Classification

Introduction to Laser Scanning.

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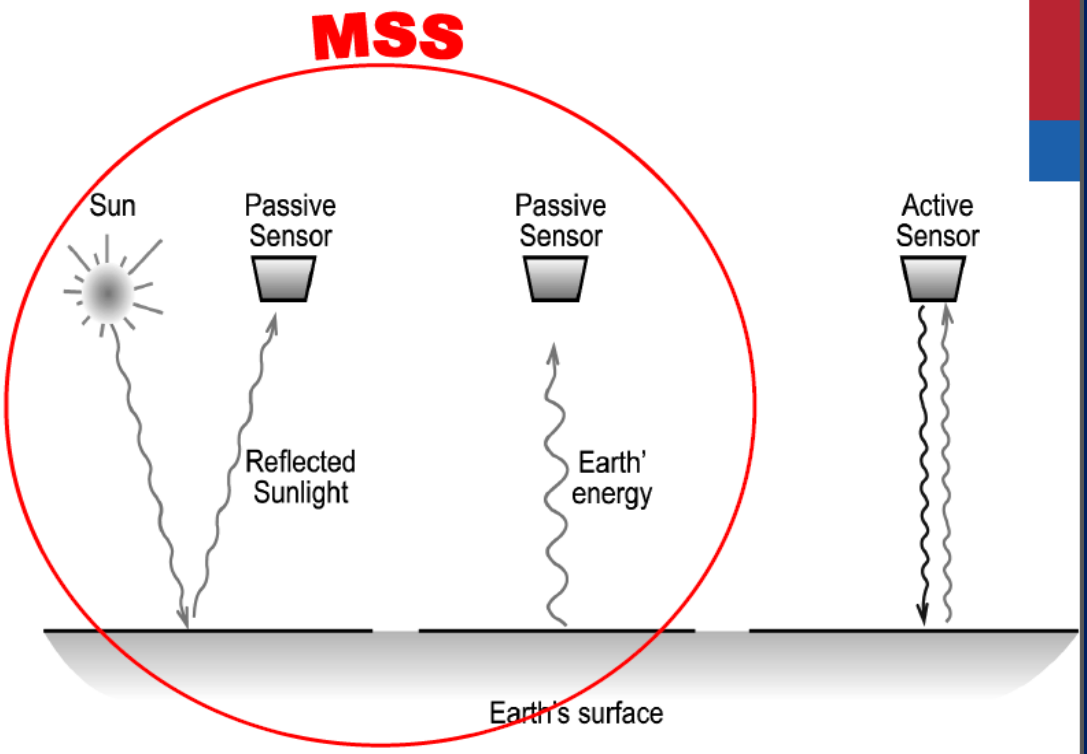
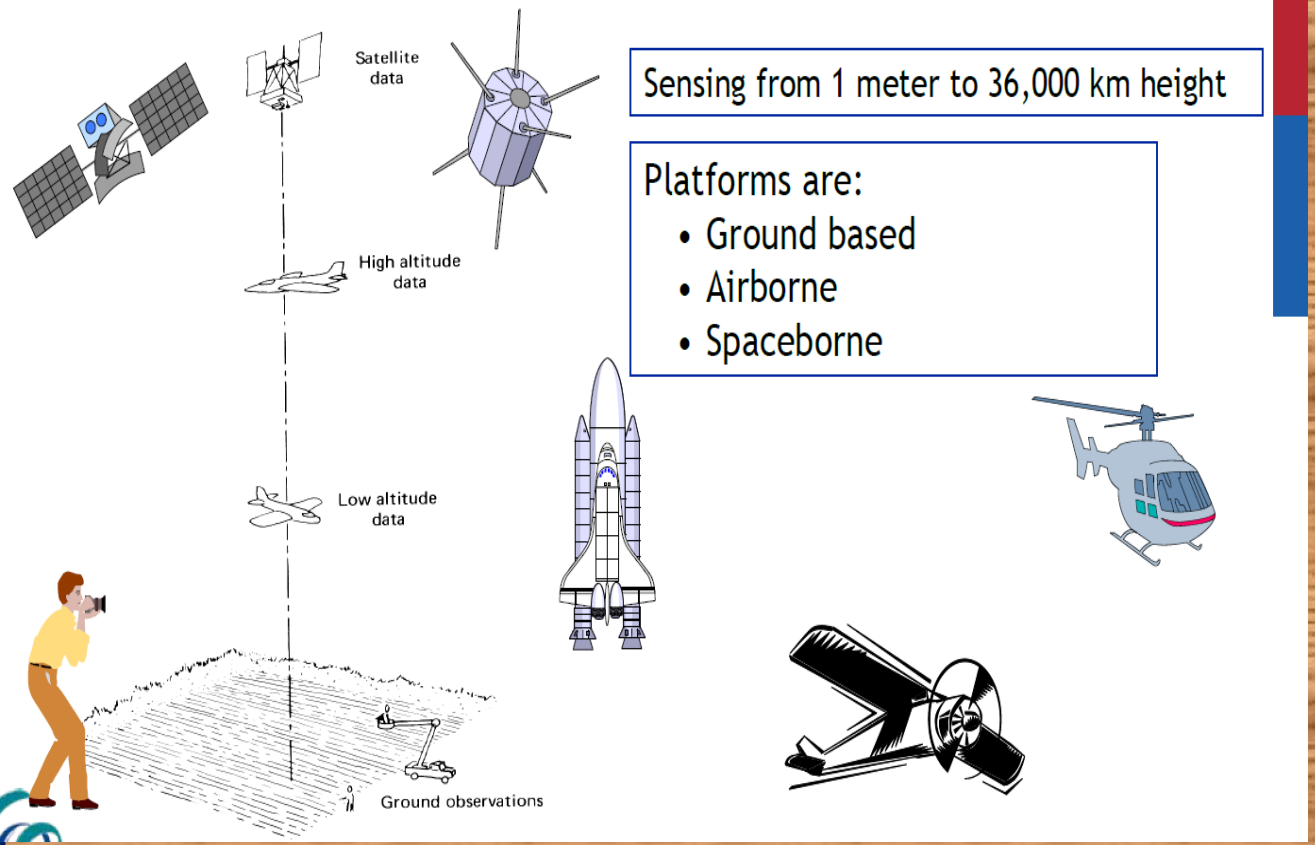


Introduction to Laser Scanning.

Platforms



Sensing from 1 meter to 36,000 km height

Platforms are:

- Ground based
- Airborne
- Spaceborne

NB: application of scanning in mine survey falls under ground based platforms. The scanner is usually set on the ground.

Current advanced scanners are able to scan in 3D such that the produced 3D images are true representation of the real world feature.

End!

Questions?