



INTRODUCTION TO REMOTE SENSING

Overview

- What is Remote Sensing?
- History of Remote Sensing
- Remote Sensing Basic Processes
- Advantages of Remote Sensing
- Remote Sensing Applications
- Remote Sensing Organizations

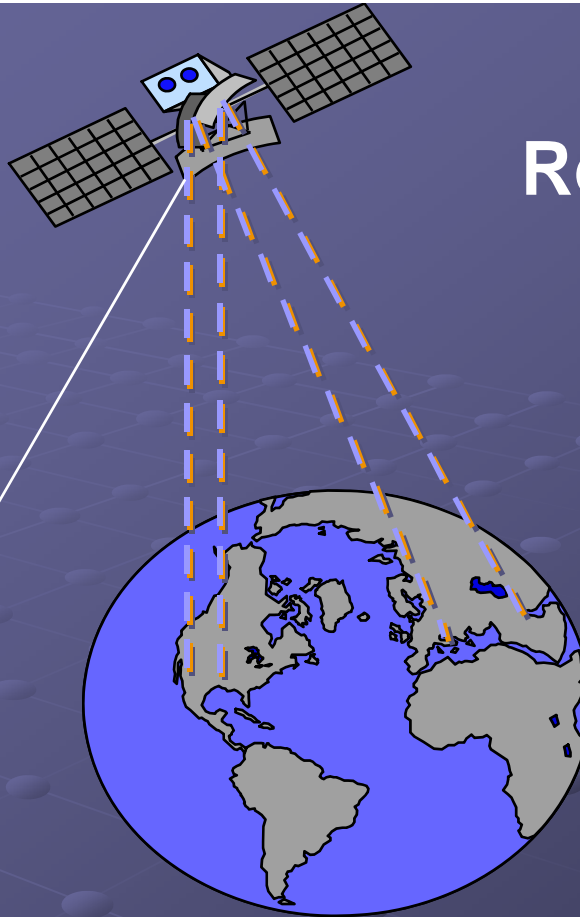
What is Remote Sensing?

“The art, science, and technology of obtaining reliable information about physical objects and the environment, through the process of recording, measuring, and interpreting imagery and digital representation of energy patterns derived from non contact sensor system ”

Remote Sensing Concept



Receiving station processing



Archiving

Distribution

History of Remote Sensing

- 1972 - 1978: Landsat Series (US Landsat1 to 6)
- 1986: France launched the first satellite (SPOT1)
- IKONOS (2002)
- Quicbird (2006)
- GeoEye (2008)

Advantages of Remote Sensing

- Provides a regional view (large areas)
- Provides repetitive looks at the same area
- Provides geo-referenced, digital, data

Remote Sensing Applications

- Land-use mapping
- Forest and agriculture applications
- Environmental applications
- Hydrology and coastal mapping
- Urban planning
- Emergencies and Hazards Management
- Global change and Meteorology

Remote Sensing Organizations

- **ISPRS**- International Society for Photogrammetry and Remote Sensing
- **NASA** -National Aeronautic and Space Administration (USA)
- **ESA**- European Space Agency (Europe)
- **NASDA**- National Space Development Agency (Japan)
- **CNES**- Centre National d'Etudes Spatiales (France)
- **DARA**- German Space Agency
- **CSA** - Canadian Space Agency
- **NRSA**- National Remote Sensing Agency of India