

→ WHAT IS REMOTE SENSING?

Remote Sensing is the principle of measuring information about an object without being in physical contact with it.

The instruments that are used in remote sensing are called sensors. They measure the electromagnetic radiation of objects and convert it into data that a computer can interpret.

Remote sensing can be done from the ground, from an aircraft or from space. In remote sensing from space, the sensors are mounted on a satellite and are oriented towards the Earth so that the atmosphere, ocean, land and objects such as trees, crops, buildings, rivers can be observed.

Remote sensing sensors are grouped into two categories: passive and active.



PASSIVE SENSORS

Passive sensors measure the radiation coming from a source external to the sensor, such as the sunlight reflected by objects on the Earth or the thermal infrared radiation emitted by the Earth itself. Passive sensors cannot detect sunlight during the night. If they are optical, they also cannot see through clouds.



ACTIVE SENSORS

Active sensors use their own source of radiation. In this case, the sensor emits radiation towards objects on the Earth and measures the amount of radiation reflected back. In contrast to passive sensors, active sensors can measure by day and by night. If they are radar, they also can see through clouds.