

Remote Sensing and GIS

DESCRIPTION:

Remote Sensing means obtaining information about an object, area or phenomenon without coming in direct contact with it. If we go by this meaning of Remote Sensing, then a number of things would be coming under Remote Sensor, e.g. Seismographs, fathometer etc. Without coming in direct contact with the focus of earthquake, seismograph can measure the intensity of earthquake. Likewise without coming in contact with the ocean floor, fathometer can measure its depth. However, modern Remote sensors are the instruments which detect various objects on the earth's surface by measuring electromagnetic energy reflected or emitted from them. The expansion of GIS is **Geographic Information System** which consists of three words, viz. Geographic, Information and System. Here the word 'Geographic' deals with spatial objects or features which can be referenced or related to a specific location on the earth surface. The object may be physical / natural or may be cultural / man made. Likewise the word 'Information' deals with the large volume of data about a particular object on the earth surface. The data includes a set of qualitative and quantitative aspects which the real world objects acquire. The term 'System' is used to represent systems approach where the complex environment (consists of a large number, of objects / features on the earth surface and their complex characteristics) is broken down into their component parts for easy understanding and handling, but is considered to form an integrated whole for managing and decision making.

DAY 1

- Introduction to RS and GIS
- Components and their applications in CIVIL engineering
- Limitations
- Introduction to ARC GIS
- Components used for mapping

DAY 2

- Working out with examples

WORKSHOP HIGHLIGHTS

- Remote sensing is a comparatively cheap and constructive approach reconstructing a base map in the absence of detailed land survey methods.
- A single picture captured through remote sensing can be analyzed and interpreted for use in multiple applications and purposes.
- Covers Massive area- Remote sensing allows coverage of extensive areas which enables regional surveys on a variety of issues and identification of remarkably large features.
- Easy recordkeeping – geographical changes are easily recorded by GIS for those responsible of recording the changes.