

# Components of GIS:-

Geographic Information System is a computer system build to capture, store, manipulate, analyze, manage and display all kinds of spatial or geographical data.

## Components:-

- ① Hardware
- ② Software
- ③ Data
- ④ People
- ⑤ Methods.

**Hardware:-** Hardware is computer on which GIS software runs.

Nowadays there are a different range of computer, it might be Desktop or server based. For computer to perform well all hardware components must have high capacity. Some of the hardware components are motherboard, hard driver, processor, graphic card, printer and so on. These all component function together to run a GIS software smoothly.

**Software:-** Next component is GIS software which provide tools to run and edit spatial information.



It helps to query, edit, run and display GIS data. It uses RDBMS to store the data. Few GIS software list: ArcGIS, ArcView 3.2, QGIS.

**Data:** The most important and expensive component of GIS which is generally known as fuel. GIS data is combination of graphic and tabular data. The process of creating the GIS data from the analog data is called digitization. Digitization process involves registering of raster image using few GCP or known as coordinates. This process is widely known as **georeferencing**.

**People:-** People are user of GIS. They run the GIS software. Hardware and software have seen tremendous development which made people easy to run the GIS software. These task may be creating simple map or performing advance GIS analysis. The people are main component for the successful GIS.



**Methods:-** For successful GIS operation a well-designed plan and business operation rules are important. Methods can vary with different organizations. Any organization has documented their process plan for GIS operation. These documents address number of questions about the GIS methods, number of GIS experts required, GIS software and hardware, process to store the data, what type of DBMS and more. Well designed plan will address all these questions.