



## Eyes in the Sky and Analysis of information

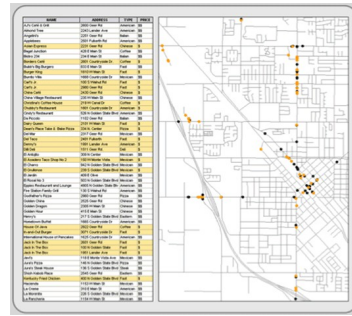
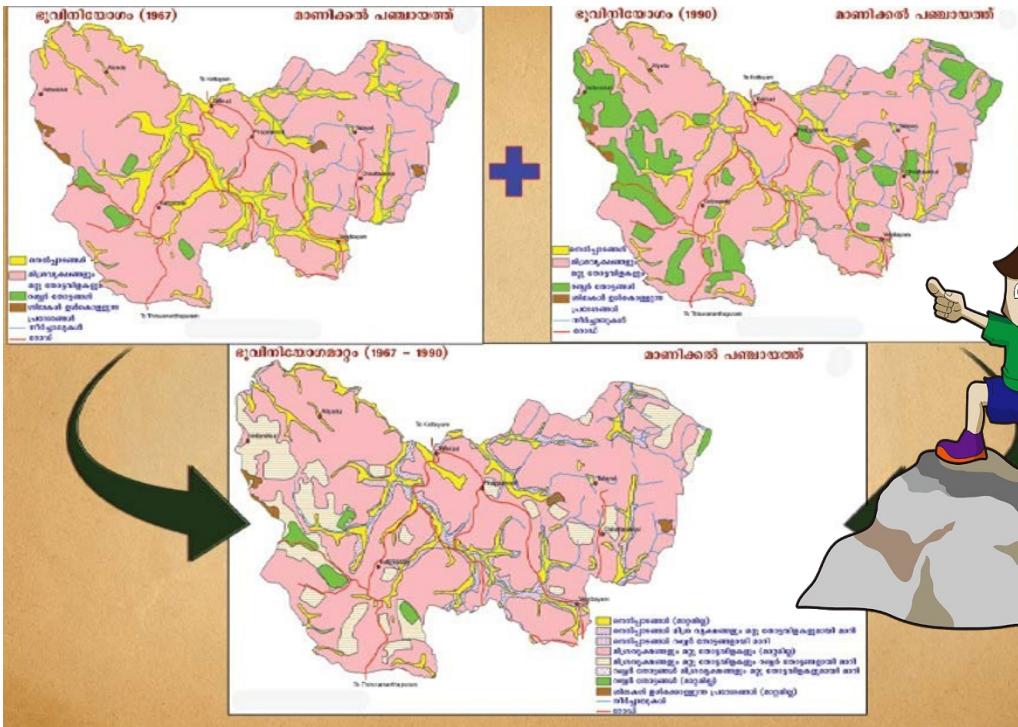
### Analytical Capabilities of GIS

The important analytical capabilities of GIS are :

Overlay Analysis	Buffer Analysis	Network analysis
------------------	-----------------	------------------

#### 1-Overlay Analysis

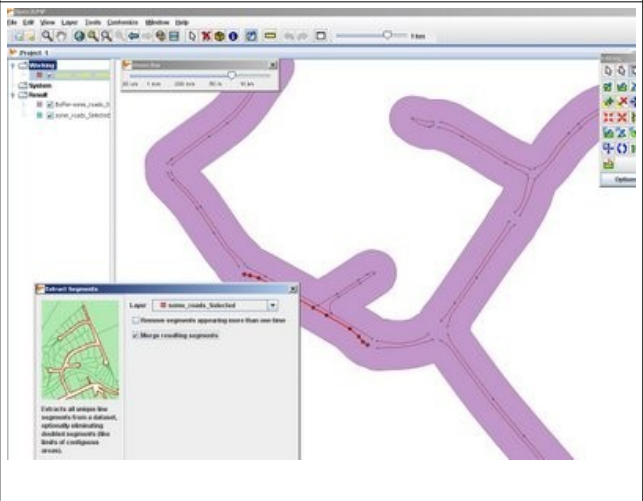
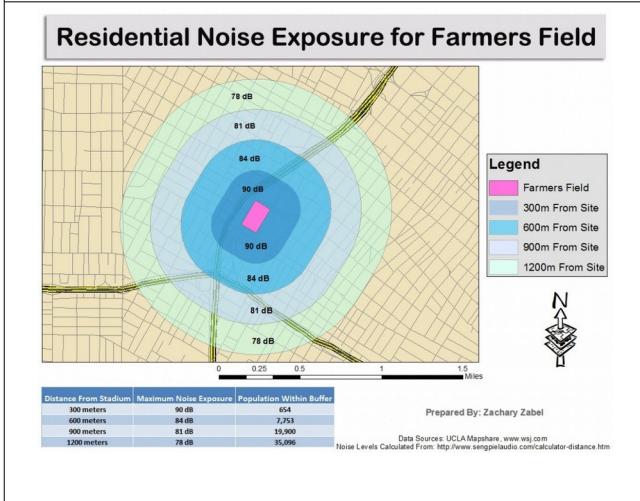
Overlay analysis is used for understanding the mutual relationship among the various features on the earth's surface and the periodic changes undergone by them. Overlay analysis is helpful in understanding the changes in the area of crops, the changes in land use etc.



#### 2- Buffer Analysis

Buffer analysis is an analytical capability used for analysing the activities around a point feature

Buffer analysis is an analytical capability used for analysing the activities at a definite distance along a linear feature.



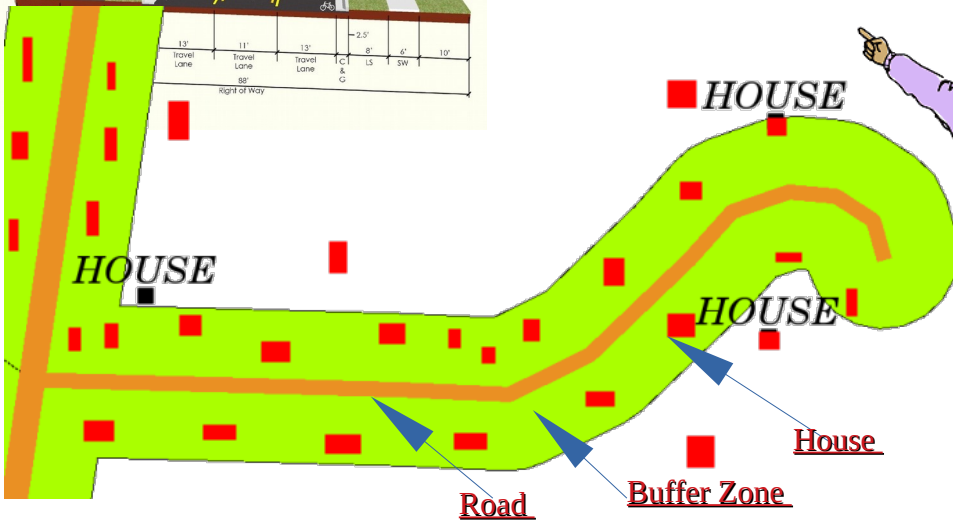
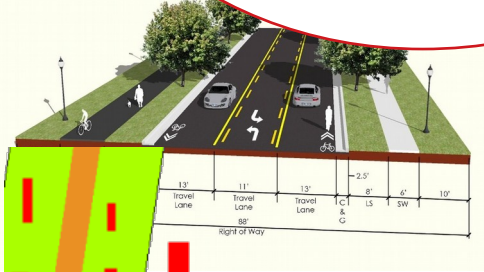


Suppose if you want to find out the number of houses located within three kilometre radius of your school, the possibility of buffer analysis can be used effectively. If the spatial data of the place where your school is located is subjected to buffer analysis in GIS, a circular area with 3 km radius can be created around your school so as to find out the number of houses in that area.



Suppose a road in your region is widening from 5 m to 8 m as per the government decision. In such a situation, a zone of required width is created along the existing road by using the possibility of buffer analysis in GIS. Thus we can easily determine how much land has to be acquired and how many people will become homeless.

Abdul Vahid U C  
 Payyolianganqadi  
 9447820303 – SIHSS  
 Ummathur,  
 Vadakana Kozhikode

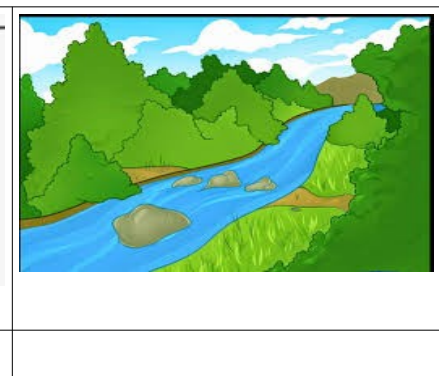
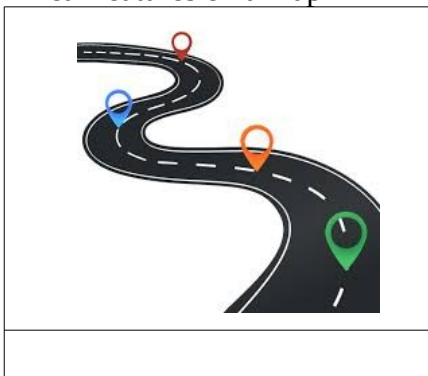


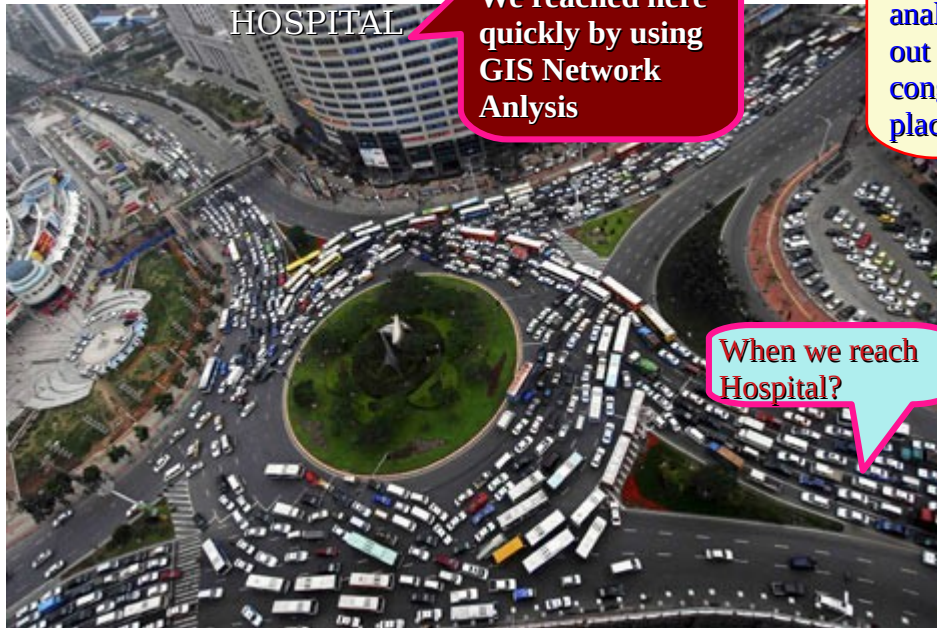
A circular zone created around a point feature or a parallel zone created aside a linear feature in buffer analysis is called buffer zone.



### 3- Network analysis

Linear features on a map





This may also help to bring an accident victim to a suitable hospital through less congested roads.

The possibilities of this analysis can also be used by tourists to plan the maximum number of attractive destinations in the available time.



## Use of GIS

By using GIS, we can

Many retail businesses use to determine where to locate a new store
City /state use to help the plan their response in case of natural disasters

## Satellite based Navigation System



Satellite-based tracking systems are used for monitoring the location and movement of objects on the earth's surface.

Satellite based Navigation System is used in several sectors like map making, transportation etc

## Common use of GPS

- GIS data collection, Surveying & mapping
- Navigation
- Recreation
- Police and Emergency Medical Services
- Firefighters
- Map makers
- Science
- Environmental Stewardship
- Construction & Mining
- Aviation Benefit
- Disaster Management
- Epidemiological investigation of disease outbreak/ epidemic
- Heli-evacuation of emergency patients



The most important among Satellite based Navigation System is the **Global Positioning System** of the United States of America.



The Global Positioning System helps sensing the latitudinal and longitudinal location and elevation of objects on the earth's surface along with the corresponding time.

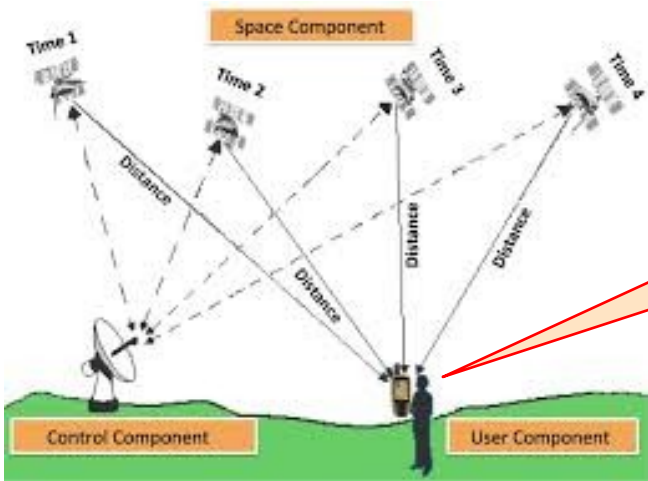


In this system a series of 24 satellites placed at six different orbits between the altitudes 20000 and 20200 km above the earth's surface locate objects.

We can locate places with the help of the signals received from the satellites in our handheld device.



The GPS requires signals from at least four satellites to display information like the latitude, longitude, elevation, time, etc. in it. 4- (latitude, longitude, elevation, time, etc )



**CLICK HERE**  
**NavIC**  
Indian Regional Navigation Satellite System

More satellites are being included in this system for enhancing accuracy. Though started initially for the U.S. defence, this facility is now open to the public since 1980.

**6 Eyes in the sky & Analysis of information**  
**CLICK HERE**

