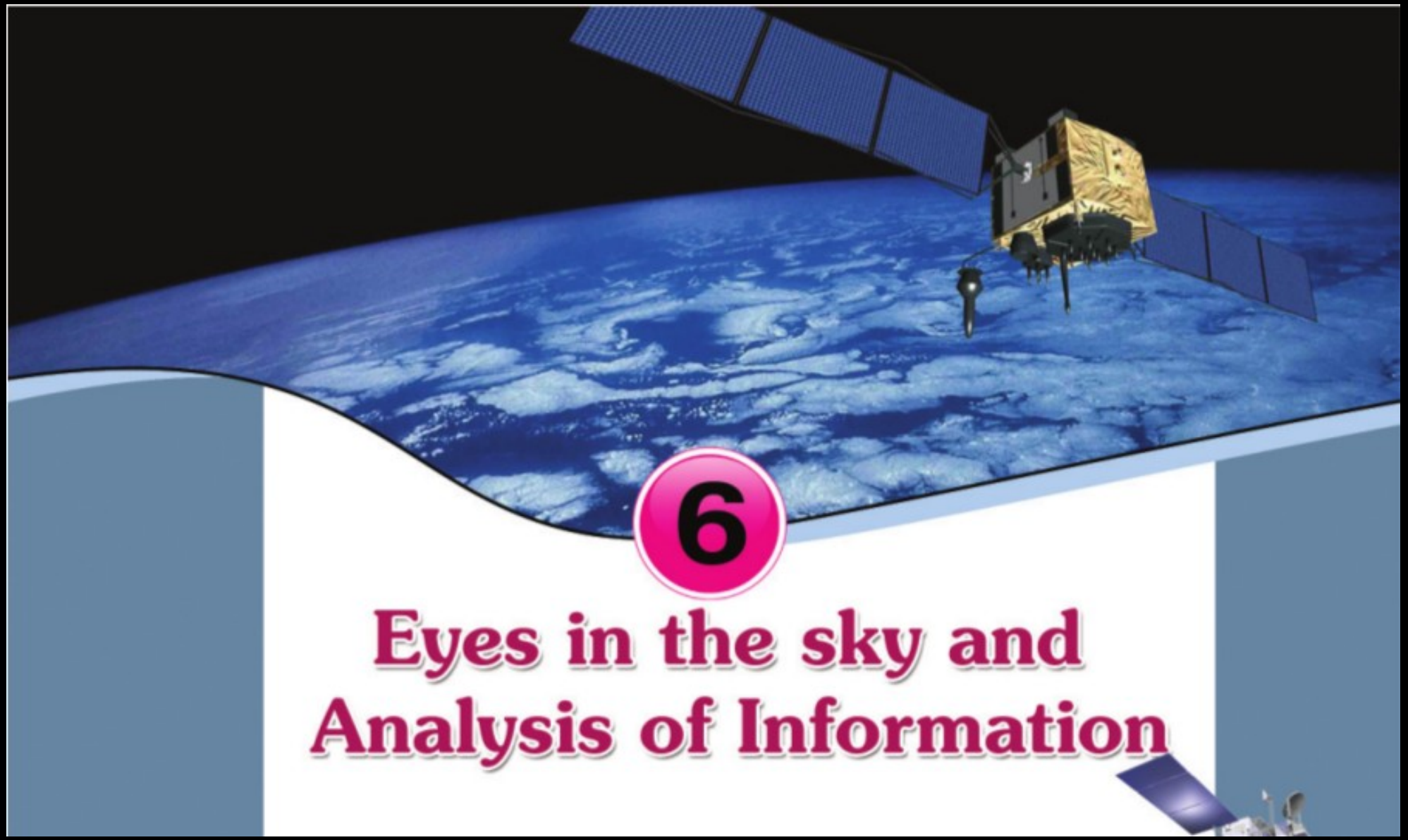
Class-4



Analytical Capabilities of GIS?

Overlay Analysis

Buffer Analysis

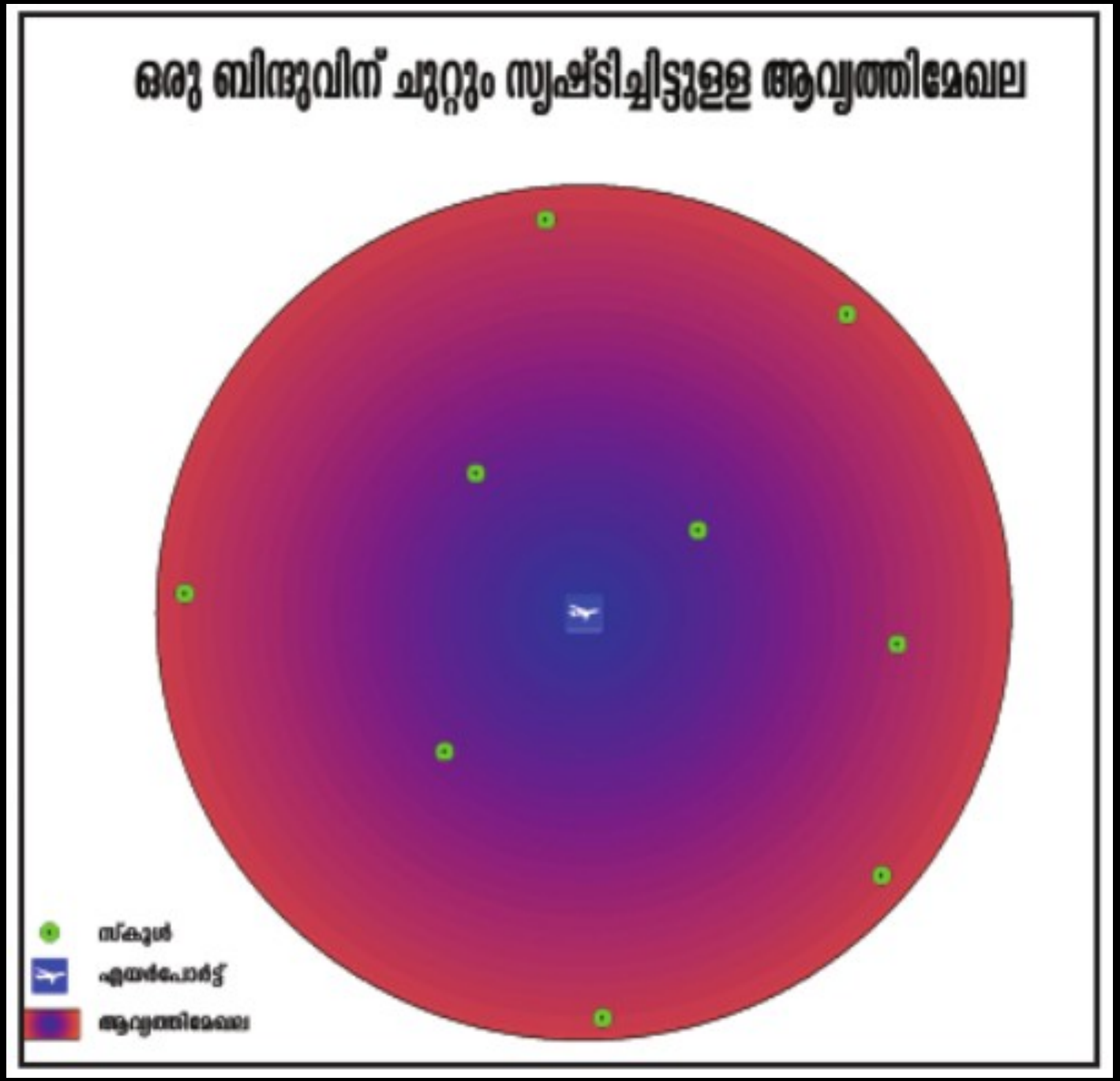
Network analysis

are the major analytical possibilities of the geographical information system.

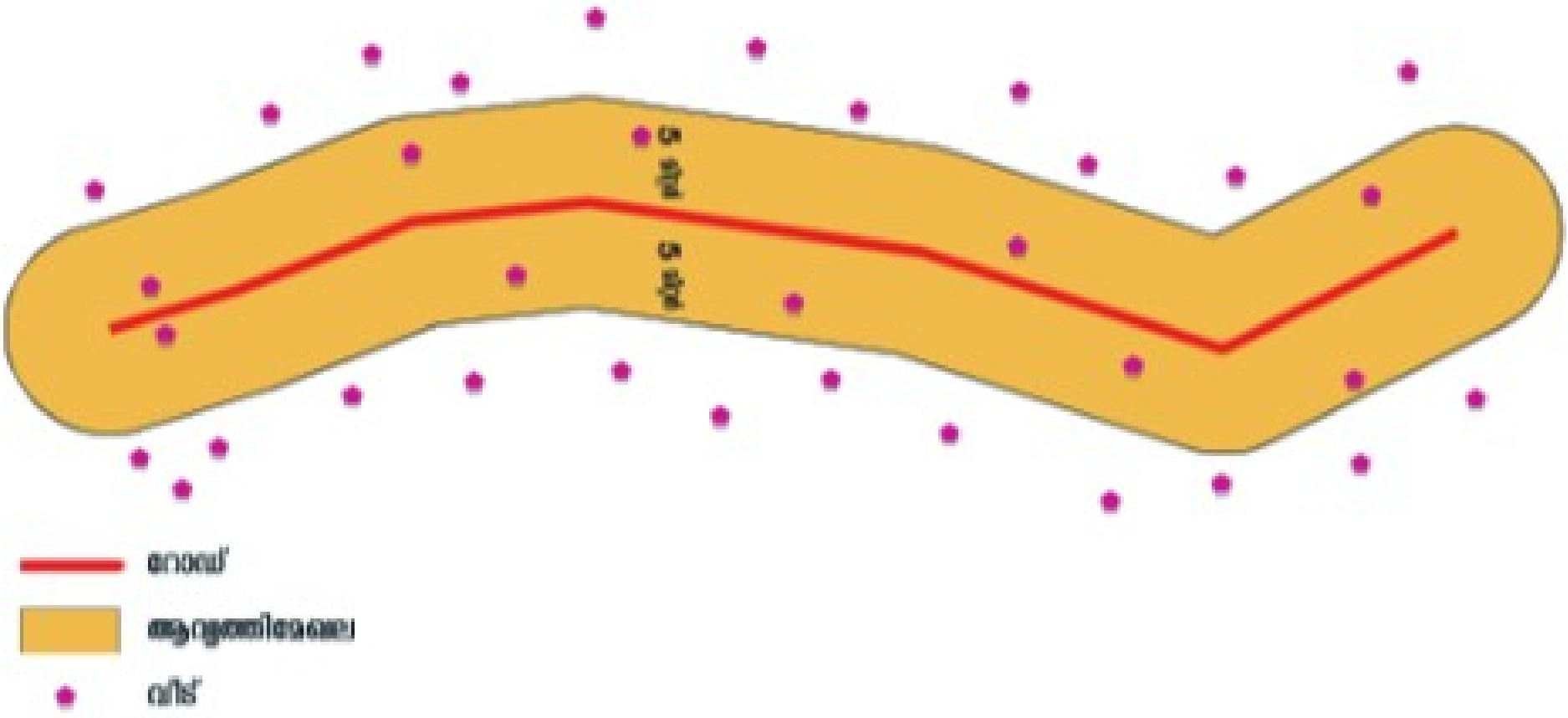
Overlay analysis

-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.


ഒരു ബിന്ദുവിന് ചുറ്റും സൃഷ്ടിച്ചിട്ടുള്ള ആവൃത്തിമേഖല
സ്കൂൾ
എയർപോർട്ട്
ആവൃത്തിമേഖല

റോഡിന്റെ ഇരുവശങ്ങളിലായി സൃഷ്ടിച്ചിട്ടുള്ള ആവൃത്തിമേഖല



Buffer Analysis

-Buffer Analysis is a technique used to analyse circular operations around a point, and for linear features at fixed distances.

-Suppose if we 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.

-Buffer analysis helps to identify the number of houses to be acquired when the existing road is widening from 5 m to 8 m as per the government Decision.

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

Network analysis

-The network analysis deals only with linear features include roads, railways lines and rivers etc. on a map

-The possibilities of network analysis can be used to find out the easiest and less congested roads from one place to another.

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

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

Uses of Geographycal Information System.

-Compile data from different sources.
-Update and incorporate data easily.
-Conduct thematic studies
-Represent geographic features spatially.
-Generate visual models of future phenomena and processes based on the data collected.
-Prepare maps, tables, and graphs.

What is the United States satellite-based navigation system?

Global Positioning System (GPS)

BIJU K K, GHS TUVVUR, MALAPPURAM

Global Positioning System (GPS)

-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 Hand held device.

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

-Though started initially for the U.S. defence, this facility is now open to the public since 1980

Indian Regional Navigation Satellite System (IRNSS)

The State - of - the art satellite - based navigation system developed by India is Indian Regional Navigation Satellite System. Apart from India a radius of 1500 kilometers including the Indian Ocean and countries like Pakistan and China come under its surveillance.

Which is a satellite-based navigation system developed by India?

-Indian Regional Navigation Satellite System

Now onwards it is Bhuvan...

Bhuvan is a satellite based geo-portal platform developed by the ISRO for the purpose of preparing maps of Indian territory by using its own satellites. Bhuvan made its humble beginning in March 2009. Basically it is a remote sensing image portal. The prime function of Bhuvan is to prepare online maps by the maximum utilization of GIS and remote sensing technologies. Satellites belonging to IRS service are used for data collection. The map making facilities available with Bhuvan are more effective than that of the Google Earth and Wiki mapia. Bhuvan can prepare very precise maps since the spatial resolution of the photographs made available by Bhuvan is 10 metres. Let us have a glance at the services provided by Bhuvan. The following facilities can be availed by visiting the web portal https://bhuvan-app1.nrsc.gov.in.

- *Bhuvan 2D - It provides 2D visualization of Indian terrain.*
- *Bhuvan 3D - it enables 3 dimensional visualization of the features on the earth surface.*
- *Information related to climate and environment.*
- *Disaster Management Support Services.*
- *Ocean services.*
- *Services related to agriculture.*

School Bhuvan

School Bhuvan is a map based e-learning portal for the students which provides awareness on country's natural resources, environment and their role in sustainable development. It is an initiative of the ISRO with National Council of Educational Research and Training. Learners can avail this facility by clicking the icon "School Bhuvan" on Bhuvan web portal.

My Map

Create a map/GIS is a mapping tool available on Bhuvan web portal for preparing maps of any region in India by obtaining the details of the surface features with the help of GIS technology.

Will you prepare a map of your region by using this service with the help of your teacher?

ALL THE BEST

By

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