

II Year-I Semester
(20CE3103) Geospatial Information System Lab

Int. Marks	Ext. Marks	Total Marks	L	T	P	C
15	35	50	-	-	3	1.5

Pre- Requisites: Surveying & RS &GIS

Course Objectives:

- To know how to do pre-processing and digitization of a Toposheet
- To know how to create thematic maps and Layout preparation
- To know how to estimate features like length, area etc.,
- To know how to generate DEM and there by volume calculation for hills/tanks.
- To know the data base creation for road network analysis and Watershed delineation in Water resources applications

Exercises:

- Preprocessing of the image / Toposheet (which includes Georeferencing, Projection and Subset)
- Digitization of Features from the Toposheet
- Topology of digitized of features
- Study of features estimation
- Creation of Thematic maps.
- Layout Preparation.
- Digital Elevation Model.
- Calculation of volumes for Hills and Tanks.
- Database creation for Road Network analysis.
- Delineation of watershed boundary.
- Mosaic of dataset.
- Clip/Subset of dataset.

Software

ArcGIS 10X

ERDAS Imagine 10.4.1

Any one or Equivalent.

S.No	Course Outcomes	BTL
1	Pre-process the image/ toposheet and digitize the features	L3
2	Create thematic maps and prepare layouts for the analyzed data	L6
3	Estimate features like length, area etc	L4
4	Generate Digital Elevation Model and calculate the volume for hills/tanks	L6
5	Create data base and delineate of watershed boundary	L6

Correlation of COs with POs& PSOs:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	2	-	-	-	3	-	-	-	-	-	-	-	-	2	2
2	2	-	-	-	3	-	-	-	-	-	-	-	-	2	2
3	2	-	-	-	3	-	-	-	-	-	-	-	-	2	2
4	2	-	-	-	3	-	-	-	-	-	-	-	-	2	2
5	2	2	-	2	3	-	-	-	-	-	-	-	-	2	2

Text Book:

1. Concept and Techniques of GIS by C.P.L.O. Albert, K.W. Yong, Prentice Hall