

<b>IV Year - I Semester</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
	<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>

### **GIS & CAD LAB**

#### **Course Learning Objectives:**

The course is designed to

- Introduce image processing and GIS software
- familiarize structural analysis software
- understand the process of digitization, creation of thematic map from toposheets and maps
- learn to apply GIS software to simple problems in water resources and transportation engineering
- learn to analyze 2 D and 3D frame steel tubular truss using structural analysis software
- learn to analyze and design retaining wall and simple towers

#### **Course outcomes**

At the end of the course the student will be able to

- work comfortably on GIS software
- digitize and create thematic map and extract important features
- develop digital elevation model
- use structural analysis software to analyze and design 2D and 3D frames
- design and analyze retaining wall and simple towers using CADD software.

#### **SYLLABUS:**

##### **GIS:**

##### **SOFTWARES:**

1. Arc GIS 9.0
2. ERDAS 8.7
3. Mapinfo 6.5

Any one or Equivalent.

##### **EXCERCISES IN GIS:**

1. Digitization of Map/Toposheet
2. Creation of thematic maps.
3. Estimation of features and interpretation