

## COMPUTER AIDED CIVIL ENGINEERING DRAWING LAB

(Skill Oriented Lab Elective - I)

**Course Code:**

L	T	P	C
1	0	2	2

**Pre-requisites:** Engineering Drawing.

### Course Outcomes:

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

**CO1:** Draw the typical views of a building (L2)

**CO2:** Draw different types of trusses and staircase (L2)

**CO3:** Draw the sectional view of a two lane road (L2)

**CO4:** Draw the sectional view of a canal and earthen dam (L2)

**CO5:** Draw the typical cross sections of RC elements (L2)

**(Any 12 out of 14 experiments)**

### LIST OF EXERCISES:

1. Conventional signs of materials, various equipment used in residences.
2. Draw the Plan, Section and Elevation of a single bed roomed house.
3. Draw the Plan, Section and Elevation of two bed roomed house.
4. Draw the Plan, Section and Elevation of the Primary Health Centre.
5. Draw the Plan, Section and Elevation of the School building.
6. King Post Truss and details.
7. Queen Post Truss and details.
8. Draw the detailing of a 2-flight Staircase.
9. Typical cross-section of a two lane-highway as per IRC Standards
10. Typical cross-section of an irrigation channel.
11. Typical cross-section of an earthen dam.
12. Typical cross-section of RCC footing.
13. Typical cross-section of RCC retaining wall.
14. Typical cross-section of RCC slab culvert.

### References:

1. Swamy Kumara,. N., Rao Kameswara., A., Building Planning & Drawing, 7<sup>th</sup> Edition, Charotar Publishing House (P) Ltd., 2014.
2. Krishnam Raju . N , (2014) Structural design and drawing , reinforced concrete and steel , 3<sup>rd</sup> Edition, University Press.
3. Khanna S.K, Justo CEG, Veeraragavan A, “Highway Engineering”, 10<sup>th</sup> Edition Nemchand Bros., 2018.