



COURSE CONTENT

COMPUTER AIDED BUILDING DRAFTING LABORATORY

IV Semester: CE

Course Code	Category	Hours/ Week			Credits	Maximum Marks		
		L	T	P		CIA	SEE	Total
2540176	Core	0	0	2	1	40	60	100
Contact Classes: Nil	Tutorial Classes: Nil	Practical Classes: 30			Total Classes: 30			
Prerequisites: NIL								

Course Overview :

Computer Aided Building Drafting Laboratory provides practical training in using CAD software for designing and drafting architectural and structural plans. The course emphasizes creating accurate 2D drawings and 3D models, detailing building components, layouts, and plans, enhancing visualization, precision, and efficiency in modern construction and engineering design practices.

Course Objectives: The objective of this Course is to

- Plan buildings as per NBC.
- Understand various types of conventional signs and brick bonds.
- Draw the plan section and elevation for doors, trusses and staircases.
- Use AutoCAD tools to draw building plans, sections and elevations from a given line diagram and specifications.
- Develop working drawings of residential buildings.

Course Outcomes: After completion of the course, the student should be able to

- Plan buildings as per NBC.
- Use different Commands of selected drafting software to draw Conventional signs and brick bonds, Plan, Section and Elevation of buildings.
- Draw section and elevation of paneled doors and trusses.
- Draw and detail the different components of Staircases.
- Develop and draw single/ two storey residential building and public building as per the building by-laws.
- Draw Electrical layout, Plumbing layout for residential buildings.

List of Experiments:

1. Planning Aspects of Building systems as per National Building Code(NBC).
2. Brick bonds: English bond & Flemish bond– Odd and Even courses.
3. Developing plan and section of dog-legged staircase.



MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION)

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4. Developing plan of single storied residential building.
5. Developing section and elevation of single storied residential building.
6. Developing plan of single/ two storied Residential building as per Building by-laws.
7. Developing plan of public building as per building by-laws.
8. Developing section and elevation of public building.
9. Development of working drawing of building—Electrical Layout.
10. Development of working drawing of building—Plumbing Layout.

TEXT BOOKS:

1. Computer Aided Design Laboratory by M.N. Sesha Praksh & Dr.G.S. Servesh—Laxmi Publications.
2. Engineering Graphics by P.J. Sha—S. Chand&Co.
3. Civil Engineering Drawing—I by N. Sreenivasulu, S. Rama Rao—Radiant Publishing House.

REFERENCE BOOKS:

1. Civil Engineering Drawing—I by S. Mahaboob Basha—Falcon Publishers
2. Building drawing by M.G. Shah—Tata McGraw-Hill Education
3. Structural Engineering Drawing by S. Mahaboob Basha—Falcon Publishers