# AUTO CAD 3D (Skill Course Lab-I)

### **Syllabus Outline:**

- AUTOCAD 3D Introduction, Solid Primitive, extrude command, Loft command, revolve tool, Sweep 3D-
- Press-pull Tool, Boolean Command, Fillet and Chamfer edge, Shell Command, Slice Tool, Interfere Command
- Imprint, extract, color edge- Extrude, taper, move- Offset, Delete, color edges, mirror command 3D-Array Tool 3D-Surface Conversion-Different Places UCS
- Sectional Planes-Creating 2D and 3D blocks-Flatshot Command-Creating 2D layout-Detailing 2D layout-Layout annotation
- Mesh command-Mesh Primitive-Mesh editing tool-3D offset delete
- 2D planning to 3D Planning
- 2BHK and 3BHK residential building Plan, 3D, and Elevation

Software Tool Used: AUTOCAD or Equivalent

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### REVIT (Skill Course Lab-I)

### Introduction to revit:-

Revit is a BIM software which helps architecture, engineering, and construction (AEC) teams create high-quality buildings and infrastructure and can be used for Model shapes, structures, and systems in 3D with parametric accuracy, precision, and ease. Streamline documentation work, with instant revisions to plans, elevations, schedules, and sections as projects change. Empower multidisciplinary teams with specialty toolsets and a unified project environment.Revit is not just software but an indispensable tool for professionals who develop projects for civil construction, offering quality, precision, and control of their projects.

#### **Course Outcomes:**

Upon successful completion of this course, the students will be

- Able to Quantitative extraction of a Project
- Able to Cost estimation of project
- Able to Project coordination
- Able to 3D visualization
- Able to Rendering
- Able to Documentation

# List of Modules

- 1. Introduction to Revit.
- 2. Difference between Revit and Autocad.
- 3. Create a project in revit.
- 4. Add wall and terrain for the building
- 5. Add roof for a building.
- 6. Add interior and exterior walls of a building.
- 7. Adding wall curtain for a project
- 8. Adding stair and railing for a project.
- 9. Modifying the roof of building.
- 10. Documenting a project.

# Software Tool to be used:

Revit