



# BIM Kida Institute of Engineering Software

## Revit Course Syllabus

Revit RCC

Revit Architecture

Revit MEP

### RCC Modeling Syllabus

#### **Week 1: Introduction to Revit Structure & RCC Modeling:**

Understanding the Revit interface for structural modeling

---

Setting up project templates for RCC structures

---

Project Units and Levels setup

---

Importing and linking CAD files

---

Grid and column placement for RCC structures

#### **Week 2: Structural Components – Columns, Beams & Slabs**

Creating RCC columns (rectangular, circular, custom)

---

Placing beams and defining beam systems

---

Project Units and Levels setup

---

Beam-column joints and load-bearing considerations

---

Modeling floor slabs and setting thickness & reinforcements

### **Week 3: Foundations & Structural Walls**

Types of foundations (isolated, combined, raft, pile)

---

Creating and modifying structural walls

---

Assigning wall types and reinforcement parameters

---

Footing design and reinforcement detailing

### **Week 4: Reinforcement Modeling & Detailing**

Introduction to Rebar modeling in Revit

---

Creating manual and automatic reinforcement

---

Rebar constraints, shapes, and bar bending schedules

---

Reinforcement for beams, columns, and slabs

### **Week 5: Staircase & Ramp RCC Modeling**

Designing RCC staircases (straight, L-shaped, U-shaped)

---

Reinforcement detailing for staircases

---

Modeling ramps and providing necessary reinforcements

### **Week 6: Structural Analysis & Load Applications**

Assigning loads (Dead Load, Live Load, Wind Load, Seismic Load)

---

Understanding Load Combinations

---

Integrating Revit with structural analysis tools (like Robot Structural Analysis)

---

Checking model stability and resolving warnings

### **Week 7: Documentation & Sheet Creation**

Generating structural plans, sections, and details

---

Creating and editing schedules (Rebar schedule, Beam schedule)

---

Annotating and dimensioning RCC drawings

---

Sheet setup and print settings

## **Week 8: Project Work & Final Submission**

Working on a real-life RCC project

---

Exporting sheets in PDF, DWG, and IFC formats

---

Final project submission & feedback

## **Week 9: Introduction to Navisworks**

Overview of Navisworks and its applications

---

Understanding the Navisworks interface

---

Navigating 3D models (Orbit, Walk, Fly modes)

---

Creating viewpoints and saving camera angles

---

Using sectioning tools

---

File formats and importing models (NWC, NWD, and NWF)

## **Week 10: Clash Detection**

Introduction to clash detection

---

Setting up clash tests

---

Reviewing and managing clash results

---

Exporting and reporting clashes

---

Using sectioning tools

---

File formats and importing models (NWC, NWD, and NWF)

## **Week 11: Revit Add-ins & Tools**

DiRoots (Automation & Productivity Tools)

---

PyRevit

---

## Dynamo for Revit