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# REVIT ELECTRICAL

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BIM Modelling



**Multi Axis Innovations**  
Innovative solutions to aec Industry

MULTI AXIS INNOVATIONS  
RAJKUMAR ROAD, BANGALORE

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# Session 1

## Basic of BIM

- Introduction to BIM
- Create a project file from template
- Understanding of user interface
- Create a simple room with four walls
- Place floor, roof for room
- Place door and windows
- Create section and elevation views
- Place all views in defaults sheet
- Make changes in door positions
- Delete few doors and see change in schedule and views

# Session 2

## View model

- Change scales and duplicate views
- Duplicate of views
- Detail view creation
- Visual style view creation
- Place Section views
- Place Elevation views
- Using view cube create different views
- Understand Navigation panel
- Use Section box for creating view
- Hide and Unhide elements
- Temporary hide elements
- Shortcuts in Revit

## Session 3

### Managing Views and Properties

- **Create Duplicate Views**
- **Duplicate view as dependent**
- **Create Match line**
- **Add Reference to views**
- **Create Call out view**
- **Place in Sheets**
- **View Crop Properties**
- **Visual graphics**
- **Filters in view**
- **View range**
- **Plan region view**
- **Scope box properties**
- **Modifying view controls**
- **Discipline**
- **Under Lay of View**
- **Selection of Objects**
- **Hide and Unhide Elements**

## Session 4

### Link Arch Model, Copy Monitor

- **Create Mechanical/Electrical file From template**
- **Link Arch Model**
- **Use different options for linking**
- **Copy monitor levels and grids**
- **Room bounding Option**
- **Understand Phase in Linking**
- **Tag Room Names**
- **Create Master Elevation and Plan Views**

- **Understand Co-ordination Review**
- **Link Unload/Reload**

## Session 5

### Place Lights

- **Place Lights**
- **Place Lights with work Plane**
- **Change Different type of Lights**
- **Place Lights on Wall**
- **Create Ceiling Plan**
- **Difference between Ceiling plan and Floor plan**
- **Change Workplace of light**
- **Type properties of Light**
- **Instance properties of light**
- **Adjusting Tiles in Ceiling Plan**
- **Ines File in Lights**
- **Visibility Graphics of Light**
- **Group of Lights**

## Session 6

### Cable Tray,Conduits,Electrical Device,Switches and Electrical Family

- **Place Electrical Device,switches and Electrical Equipment**
- **Place Cable tray,conduits**
- **Cable tray offset**
- **Cable tray type and Instance properties**
- **Cable tray configuration for Intersection**
- **Place conduit**
- **Conduit configuration**
- **Placing conduits inside cable tray**
- **Conduit and cable tray schedule**

## Session 7

Electrical Settings,Circuits of Light,Power,Data,Fire Alarm,Panel

Schedule,System Browser

- **Voltage and Distribution System Configuration**
- **Configure Families**
- **Create Lighting Circuit**
- **Add Power to Circuit**
- **Add Switches to Circuit**
- **Create Data,Communication,Fire Alarm Schedule**
- **Create Panel Schedule**
- **Edit Panel Schedule**
- **Check System Browser**
- **Add Wires to Circuit and Change**
- **Load Calculations**
- **Wire Settings**
- **Panel Schedule Template**

## Session 8

Annotation

- **Tag by category,Room tag and tag all**
- **Spot elevation/Spot Co-ordinate/Spot Slope**
- **Place text,justification,find and replace**
- **Leaders**
- **Dimension Linear/Radial/DiameterElements**
- **Detail line /Regions**
- **Revision Cloud**
- **Key notes**
- **Title block edit**
- **Symbols**

- **Custom Title Book**

## Session 9

### Collaborate

- **Create Workset**
- **Create Central File**
- **Backup of Central File**
- **History of Central File**
- **Copy monitor Elements**
- **Co-ordination Review**
- **Workset assign to Elements**
- **Clash Detection With in File**
- **Clash Detection With, Linked Elements**
- **Save Views with workset**
- **Workset options**

## Session 10

### Insert and Link

- **Insert AutoCard File**
- **Insert Revit File**
- **Understand Options of insert Revit**
- **Add images in project**
- **Manage Link Files**
- **Manage Decal**

## Session 11

### Manage Models

- **Topics**
- **Transfer properties from other files**



- **Object Styles**
- **Line Style/Fill pattern Create and Manage**
- **Project Information and Parameters**
- **Shared Parameters**
- **Project Location and Properties**
- **Element ID and Search**
- **Warnings in Model**
- **Macros in Revit**
- **Units, Snap in Model**
- **Project Parameters**
- **Material**

## Session 12

### Manage Room and Spaces

- **Room and Room Tag**
- **Creating Spaces**
- **Modifying Spaces**
- **Area and Volume Calculation**
- **Creating Zone**
- **Systems Browser and Zone**
- **Colour Scheme**

## Session 13

### Create Schedules

- **Add Fields in Schedule**
- **Use Sorting and Grouping in schedule**
- **Use Filter in Schedule**
- **Format Field in schedule**
- **Calculate Totals**
- **Formatting header and schedule lines/Fonts**
- **Phases in Schedule**

- **Schedule from Linked file**
- **Create calculated Value in Schedule**
- **Count and Sum of Fields**

## Session 14

### Electrical Settings

- **Add Filed in Schedule**
- **Use Sorting and Grouping in schedule**
- **Use Filter in Schedule**
- **Format Field in schedule**
- **Calculate Totals**
- **Format header and schedule lines/Fonts**
- **Phases in Schedule**
- **Schedule from Linked file**

## Session 15

### Families

- **Loading of Families**
- **View Families in Project browser**
- **Types of Families**
- **Editing annotation family**
- **Create model in place family**
- **Elements of Family**
- **Family Category and Parameters**
- **List of websites providing Revit families**
- **Modelling in Family using Extrusion Blend,Resolve, Sweep**
- **Void in Family**
- **Visibility in Family**
- **Reference plane and assigning Parameters**
- **Create Symbolic lines Family**

## Session 16

### Presentation of Documents and Printing

- **Align grid**
- **Guide grid**
- **Consistence in line styles**
- **Using view templates**
- **Printing options**
- **Saving print sets**
- **Margins in Sheets**
- **Title on Sheet Value**
- **View List**
- **Sheet List**

## Session 17

### View elements in Link and View Template

- **View elements according to Host**
- **View elements according to link**
- **View elements according to custom**
- **Worksets for viewing model**
- **Using Filters List in View**
- **Using View Template and Assign**
- **Managing Starting View**
- **Project Browser Management**
- **Title on Sheet View**
- **Managing View Title Family**

## Session 18

### SAMPLE PROJECT

### LOD 100 Project

- **Single Floor Project With 7 Rooms of total 200 Square meter**
- **Project Should have all Family name and View names**
- **Warning Should be minimum**

- **All the Sheet view should be places in Sheet**
- **Create Schedule for Wall, Door and Window with Count**
- **Project Information to be filled**
- **All the Floor plan should be dimensioned and tagging**
- **Develop Four Elevations and Dimension them**
- **Develop two Sections of the Building**
- **Show 3D View for all the Rooms**
- **Minimum 10 Sheets in the project**