



(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

S.P.G.Chidambara Nadar - C.Nagammal Campus

S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

## Department of Civil Engineering

### Value Added Course on 3D modeling using Sketchup with Lumion Rendering

#### SYLLABUS

##### Module 1: Introduction to SketchUp (4 Hours)

- Overview of SketchUp and its applications
- User Interface and Navigation Tools
- Setting up a SketchUp Project
- Understanding Axes, Units, and Templates

##### Module 2: Basic Drawing & Editing Tools (5 Hours)

- Line, Rectangle, Circle, and Arc tools
- Push/Pull, Offset, and Follow Me tools
- Move, Rotate, Scale, and Mirror objects
- Grouping vs. Components

##### Module 3: Advanced Modeling Techniques (5 Hours)

- Creating Complex 3D Geometry
- Working with Layers and Tags
- Using the Outliner for Model Organization
- Solid Tools for Boolean Operations

##### Module 4: Materials & Texturing (5 Hours)

- Applying and Editing Materials
- Importing Textures and Customizing Surface Finishes
- UV Mapping Basics

##### Module 5: Rendering & Visualization (8 Hours)

- Introduction to Rendering Plugins (V-Ray, Enscape, Lumion)
- Adding Lights and Shadows
- Scene Composition and Camera Angles

##### Module 6: Components, Dynamic Components & Warehouse (5 Hours)

- Understanding and Using Components
- Creating and Editing Dynamic Components
- Downloading and Using 3D Warehouse Models

##### Module 7: Layout & Documentation (8 Hours)

- Generating 2D Plans from 3D Models
- Dimensioning and Annotations
- Exporting to CAD and Other Formats

Coordinator

HoD/Civil