

## CATIA V5

### A Course Especially for Engineers and Designers.

This course is designed specially for technical people. This Course explains both concept **Design for Mfg.** & **Design for Analysis** & gives maximum knowledge in minimum duration. The syllabus is designed according to the **Industry standards**. For any type of Industrial carrier in 3D Modeling, CATIA is the most popular & Higher-end 3D CAD software for surfacing.

#### **Syllabus:**

Introduction: CAD/CAM/CAE Product cycle, Parametric Technology, Introduction to CATIA Environment & Menu bar, Use of Mouse.

**Sketcher Workbench:** Creating 2D Geometry, Working on Profile Toolbar Dimensioning the Sketches, Modifying and Constructing using Operation & Transformation Toolbar, Applying Constraints & Constraint Definition, Animating constraint & Checking Various Mechanisms

**Part Design:** Understanding Part Design Environment, Creating Solid Models using Sketch-Based Features, Working with Dress-Up Features, View Toolbar,

Creating & Working efficiently on Reference Elements Planes, lines & points.

Editing - Updating Features, Transformation Features e.g. Patterning, Rotating, Advanced Modeling Techniques e.g. Boolean Operations, Annotations, Assigning Materials & Measuring Properties.

#### **Surface Design:**

Basic Task: Creating Wireframe elements e.g. helix, splines, Curves, etc. Creating Surfaces like blended, lofted surfaces, etc. Operations on Shape Geometry e.g. Joining, splitting & trimming.

Advanced Task: Surface Operations like Healing, Extracting, etc. Handling with Curves, Extrapolating surfaces, Splitting body with surface, Solidifying the surface models, Sewing Surface with Solid body.

**Assembly Design:** Creating Bottom-up Assemblies, Inserting Components, Using Smart Move tool, Applying Constraints, Creating Top-down Assemblies, Working with Subassemblies, Editing Assemblies, Simplifying Assembly, Interference Detection, Sectioning & exploding assembly.

**Drafting Workbench :** Generating Drawing View with 1<sup>st</sup> angle or 3<sup>rd</sup> angle, Using Wizard, Generating Projected, Auxiliary, Section, Detailed views, etc Using Control knob, Editing Views, Generating Dimensions, Inserting Sheets, Adding Datum, Geometric Tolerances & symbols, Generating BOM table.

**Pre-requisites:** Mechanical / Production Engineering / Diploma / ITI  
(Student / Professionals) **Total Duration: 100 Hrs. Fees: Rs.15,000/-**

