SLOG SOLUTIONS PRIVATE LIMITED
TECHNOLOGY : <u>SOLIDWORKS</u>

DURATION: MODULE 1 (4 WEEKS)
MODULE 1 + 2 (6 WEEKS)

MODULE 1:

- **INTRODUCTION**

    - ❖ **Concept of Design**
    - ❖ **CAD/CAM/CAE**
    - ❖ **History of Solidworks**
    - ❖ **Modules in Solidworks**
    - ❖ **Applications and Scope of Solidworks**
    - ❖ **System requirement**

- **SKETCHER**

    - ❖ **Creating Sketches**
    - ❖ **Editing Sketches**

- **PART MODELING**

    - ❖ **Part Designing**
    - ❖ **Reference Geometry**
    - ❖ **Placed Features**

- **ASSEMBLY MODELING**

    - ❖ **Assembly Mates**
    - ❖ **Manipulation**

- **DRAWING VIEWS & DETAILING**

    - ❖ **Layout**
    - ❖ **Templates**
    - ❖ **Detailing**

- **DATA CONVERSION**

    - ❖ **Convert Files Into IGES, STEP, PDF, & DWG. Etc.**
    - ❖ **Export & Import Files**

INTRODUCTION OF DESIGN CONCEPT AND PROCEDURE

- **Detailed Concept Of CAD**
- **Need & Importance Of CAD**
- **Overview About Actual Designing In Industries, Fundamentals Of Design And Its Implementation Methods**
- **All Characteristics Of Solidworks To User Friendly Atmosphere**
- **Superiority Of Solidworks With Its Use And Demand In Industries**

TAKING THE SOLIDWORKS V5 TOUR

- **Introduction To Solidworks.**
- **System Requirements**
- **Starting Solidworks In Windows**
- **The Workbench Concept**
- **Workbenches In Solidworks**
- **Adjusting The Solidworks Interface**
- **Creating And Managing Workspace**
- **Graphic User Interface Of Solidworks**
- **Menu And Toolbars**
- **Opening Files**
- **Creating New Files**
- **Keyboard Shortcuts**
- **Selecting/Moving Objects With Mouse**
- **Working With Planes**
- **Properties Toolbar**
- **Changing The Properties**
- **Changing The Interface From 3d Modeling To 2d Sketching And Vice-Versa**
- **Uses & Description About Feature Manager Design Tree**
- **Working With Respect To Ucs.**
- **Setting Up The Document Options**

SKETCHER

- **Getting Started With Sketch**
- **Creating Centerlines**
- **Constructing Lines**
- **Constructing Ellipse**
- **Constructing a Circle**
- **Constructing an Arc**
- **Creating Slots**
- **Creating Polygon**
- **Creating a Parabola**
- **Creating a Spline**
- **Equation Driven Curve**
- **Point**
- **Creating Text**
- **Creating Construction Geometry**
- **Rapid Sketch**

EDITING SKETECHES

- **Sketch Fillet**
- **Sketch Chamfer**
- **Offsetting Entities**
- **Converting Entities**
- **Trim**
- **Extending Entities**
- **Mirror**
- **Moving Sketch Entities**
- **Moving Sketch Entities**
- **Copying The Sketch Entities**
- **Rotating Sketch Entities**
- **Scaling Sketch Entities**
- **Modify Sketch**
- **Close Sketch Of Model**
- **Sketch Picture**
- **Area Hatch / Fill**
- **Sketch Patterns**
- **Blocks**
- **Relations**
- **Automatic Relations**
- **Conflicts In Relations**
- **Dimensioning**
- **Exiting The Sketch**
- **3d Sketching**

PART MODELING

- Terminologies Used In Part Modeling Environment
- Entering The Part Module
- Choosing The Sketch Plane
- Extruding Boss / Base Features
- Revolving Boss / Base Features
- Creating Sweep Features
- Creating Loft Features
- Creating Cut Features
- Selecting Geometrics In Solid Works

REFERENCE GEOMETRY

- Reference Planes
- Creating New Planes
- Creating Reference Axes
- Creating Reference Points
- Creating Reference Coordinate Systems
- Editing Reference Geometries
- Creating Curves

PLACED FEATURES

- Creating Simple Holes
- Creating Standard Holes Using The Hole Wizard
- Creating Fillets
- Creating Chamfers.
- Creating Shell Features
- Creating Rib Feathers
- Creating Draft Feature
- Creating Pattern

ASSEMBLY MODELING

- Types Of Assembly Design Approaches
- Working With Solid Works Assembly Bottom-Up Approach
- Positioning The Components In Assembly
- Assembly Mates

- Standard Mates
- Advanced Mates
- Mechanical Mates
- Smart Mates
- Mate Reference
- Replacing The Assembly Components
- Rotating A Component
- Moving Components
- Detecting Interference
- Assembly Pattern
- Assembly Mirror
- Creating Exploded View
- Physical Simulation
- Top Down Design
- Assembly Performance
- Configuration In Assembly
- Smart Components
- Smart Fasteners

MODULE 2:

DRAWING VIEWS & DETAILING

- Introduction Of Drawing
- Need & Importance Of Drawing
- Starting The Drawing Workbench
- Defining The Sheet & Sizes
- Adjusting Of Drawing Sheet According To Object/Assembly
- Types Of Projection
- Using Predefined Drawing Styles
- Scaling The Drafted View

DRAWING VIEWS

- Creating Drawing From Part Or Assembly
- Creating A New Drawing Document
- Generating Standard Views
- Derived Views
- Creating Broken Views

DETAILING

- Creating Dimensions
- Creating Model Dimension
- Creating Auto Dimension
- Dim-Xpert
- Creating Smart Dimension
- Creating Ordinate Dimension
- Creating Chamfer Dimension

DATA EXCHANGE

- Converting Files For Transferring
- Converting Into IGES, STEP, PARASOLID Etc.
- Convert Into Jpeg, Mpeg, Tiff, Pdf Files

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