COURSE : SOLIDWORKS ADVANCED TRAINING

SOLIDWORKS Advanced Training takes you one step closer to a successful career in different industry verticals using SolidWorks. An extension of ***SOLIDWORKS Beginner*** training, this course enables you to use SolidWorks to design complicated products with ease. Industry specific features such as Sheet Metal, Surfacing, Weldments and Electrical Routing are also dealt with in detail.

Pre-requisites of the course:

- Working knowledge in windows 7 and windows 8.1.
- Basics of mechanical engineering.
- Knowledge in engineering drawings.
- Should have successfully completed the ***SOLIDWORKS Beginner*** *training.*

Course Content:

- **SolidWorks Advanced Features**
  - SolidWorks Toolbox
  - FeatureWorks
  - PhotoWorks
  - Design Checker
  - Assembly Configurations and Design Tables
  - Assembly animations
  - Advanced Mates & Mechanical Mates
  - Basic and Composite Mate References
  - Using the FeatureManager in an Assembly
  - Assembly Level Cut and Feature Scope
  - Belt/Chain Assembly Feature
  - Lightweight Components
  - Large Assembly Mode
  - Simplifying Assemblies
  - Smart Components
  - Creating sensors
- **Sheet Metal**
  - Creating Basic Sheet Metal Features

- Adding Flanges to Sheet Metal-Miter, Edge, tab
- Creating, Editing, and Inserting Forming Tools
- Using Forming Tool Feature
- Patterning a Forming Tool
- Normal Cuts and Manual Relief Cuts
- Creating Hems and Jogs
- Flat Pattern Options
- Break Corners, Corner Trim, and Closed Corners
- Creating Sheet Metal from Imported 2D and 3D Data
- Converting to Sheet Metal by Inserting Bends and Rips
- Bending a Part using a 2D Sketch
- Working with Cylindrical and Conical Parts
- Using Lofted Bends
- Bend Deviation
- Designing Sheet Metal in an Assembly
- Flat Pattern View and Blank Views
- Automatic Ordinate Dimensions

➢ Surface

- Basics of surfacing
- Hybrid Modeling
- Using Surfaces to Modify
- Trim, Knit, and Thicken features
- Making Copies of Faces
- Ruled Surfaces
- Lofting Surfaces
- Revolved surface
- Swept surface
- Filleting surface
- Complex Blends
- Smoothing Patches
- Boundary Surface
- Freeform Feature
- Corner Blends

➢ Weldments

- Setting Up Structural Member Libraries
- Creating Simple Structures
- Groups vs. Structural Members
- Miter and Butt Corner Treatments
- Trimming Structural Members

- Putting in Weld Beads
- Gussets and End Caps
- Creating Cut Lists
- Detailed Plans and Member Drawings
- Working in the 3D Sketcher
- Creating Bent Tube Members
- Fish-mouth Cuts
- Adding Sheet Metal Components and castings
- Manufacturing Considerations
- Reusing Components
- Manage Custom Properties
- Customizing Weldment Library and Profiles

➢ Routing

- General Set-Up
- Option Settings
- Defining Templates and Paths
- Basic Routes
- Adding Connectors
- Running Through Clips
- Routing Components
- Adding New Components to the Library
- Creating and Using Standard Cables
- From – to – Route Spreadsheets
- Routing on the Fly
- Splitting Wires
- Coloring Wire Ends
- Electrical Data Import
- Electrical Drawing
- Electrical Conduits
- Tubing Routes

<u>NOTE:</u> A VAR Course Completion Certificate will be issued on successful completion of the training.