Course Name	:	_**NX CAD (Sketching, Modeling, Drafting, Assembling & Simulation)**_
Course Duration	:	40 Hrs.

Course Overview

- **Intended audience**
  - This course is suited for designers, engineers, manufacturing engineers, application programmers, NC programmers, CAD/CAM managers, and system managers who need to manage and use NX.
- **Prerequisites**
  - _Education_: Diploma completed or Degree 2nd year completed in any one of following Streams.
    - Aeronautical, Automobile, Civil, Industrial, Marine, Mechanical, Mechatronics, Metallurgy, Production and Manufacturing Engineering.
  - _Software_:
    - Working knowledge of the following:
      - NX Interface
      - Part file saving conventions
    - Essentials for NX Designers, or NX Basic Design, or Self-paced topics (the Basic Concepts in NX, Feature Modeling, and Sketching courses)
    - Basic understanding of parametric modeling
- **Course Objectives**
  - After successfully completing this course, you should be able to perform the following activities in NX:
    - Create and edit parametric solid models.
    - Create and modify basic assembly structures.
    - Create and modify simple drawings.
    - Navigate through the drafting user interface.
    - Create and maintain drawing sheets and views.
    - Create and edit user-defined view boundaries.
    - Create view dependent geometry.
  - You will also explore some techniques for working with assemblies.
  - Basics of Motion Simulation
- **Course Contents**
  - Create & Import New User Roles
  - Create Custom Tabs
  - Create New Keyboard Shortcuts for commands
  - Customize Mouse Shortcuts
  - Part Navigator
  - Sketch Settings
  - 3D Modelling
  - Pattern sketch curves
  - Offset sketch curves
  - Create reference sets

- Sweeping geometry to create part features
- Creating swept features with offset and draft
- Creating and editing holes
- Blending and chamfering edges
- Loading and working with assemblies
- Adding and positioning parts in an assembly
- Exploded View of an Assembly
- Master model drawings and drafting standards
- Drawing sheets
- Drafting views
- Custom views
- Move, copy, and align views
- Updating drawings and drafting views
- Centerline symbols
- Dimensions
- Notes and labels
- Section views
- Detail views
- Hidden lines
- Parts lists
- Sectioning assembly views
- Exploded views
- 3D Contact
- Gear Couplers
- Displacement & Angular Velocity Graphs