Course Description:

Autodesk Nastran In-CAD Essentials program introduces designers to the add-on environment inside Autodesk Inventor for performing advanced finite element analysis to help users understand how their designs will perform. Linear and nonlinear static analyses as well as vibration-related simulations are covered.

Upon completion, users will have the ability to confidently validate their digital prototypes and make early decisions to optimize their designs.

Learning Objectives:

- Introduction to the Autodesk Nastran In-CAD environment
- Idealizations and materials (linear, nonlinear and composites)
- Analyses for static (linear & nonlinear) and dynamic models (frequency and transient response)
- Boundary conditions (loads & constraints)
- Connector elements (rod, cable, spring, rigid body, bolt)
- Surface Contact definition
- Global and local mesh settings
- Running an Autodesk Nastran In-CAD analysis (Output browser)
- Post-processing results (plots and charts)
- Introduction to Nastran In-CAD iLogic Automation (IIA)

Supplemental Learning:

- Autodesk Fusion 360 Ultimate – Simulation
- Autodesk Inventor Simulation
- Autodesk Inventor Intermediate
- Autodesk Inventor Design Automation
- Autodesk Inventor Sheet Metals
- Autodesk Tube and Pipe