

SIMULATION PREMIUM: DYNAMICS

Pre-Requisites: SOLIDWORKS Simulation (Required), SOLIDWORKS Simulation Professional (Recommended)

Daily Schedule: 8:30 a.m. - 4:30 p.m.

Length: 2 Days

This course is targeted for the users who would like to become productive in analyzing structures subjected to various types of dynamic loading. The material covered includes the time dependent analysis (force loads as well as motion shock loading examples), harmonic analysis and random vibration analysis (MIL-STD-810G example is included).

Introduction: Fundamentals of Dynamic Response

- » About This Course

Lesson 1: Vibration in a Pipe

- » Objectives
- » Static Analysis
- » Frequency Analysis
- » Dynamic Analysis (Slow Force)
- » Dynamic Analysis (Fast Force)

Lesson 2: Transient Shock Analysis According to MIL-STD-810G

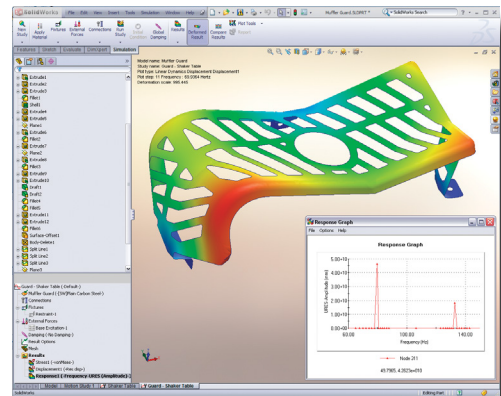
- » Objectives
- » Mass Participation Factor
- » Damping
- » Viscous Damping
- » Time Step

Lesson 3: Harmonic Analysis of a Bracket

- » Objectives
- » Harmonic Analysis Basics
- » Single DOF Oscillator
- » Harmonic Analysis of a Bracket

Lesson 4: Response Spectrum Analysis

- » Objectives
- » Response Spectrum Analysis
- » Response Spectrum
- » Response Spectrum Input
- » Mode Combination Method



SIMULATION PREMIUM: DYNAMICSLesson 5: Random Vibration Analysis
According to MIL-STD-810G

- » Objectives
- » Random Vibration Analysis
- » Power Spectral Density Function
- » Overall Level of Acceleration PSD
- » Decibels
- » RMS Results
- » PSD Results
- » 1, 2, 3 Results

Lesson 6: Nonlinear Dynamic Analysis
of an Electronic Enclosure

- » Objectives
- » Nonlinear Dynamic Analysis
- » Linear vs. Nonlinear Dynamic Analysis
- » Rayleigh Damping
- » Time Integration Methods
- » Iterative Methods

