SOLIDWORKS Simulation Premium: Dynamics

Course Outline

DURATION / TIME

2 Days
9:00 am - 5:00 pm

METHODOLOGY

Practical hands-on with using computers, lecturing, discussions, and case studies.

PREREQUISITES

Experience with the Windows™ Operating System.
Attended SOLIDWORKS Essentials and Simulation training.
Basic knowledge of finite elements and mechanic principles.

TARGET

Application Engineer, R&D Engineer, Product Designer or Engineer, and Industrial Engineer

INTRODUCTION

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 (MILS-STD-810F example is included), response spectrum analysis, and introduction to nonlinear dynamics simulation.

OBJECTIVE

At the end of this program participants are expected to:

- Understand the concept of static, frequency, and dynamic analysis.
- Perform transient shock analysis according to MILS-STD-810 standards.
- Perform harmonic, response spectrum, and random vibration analysis on parts and assemblies.

CONTACT

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SOLIDWORKS Simulation Premium: Dynamics DAY 1

Course Outline:

Lesson 1: Vibration of a Pipe

- Objectives
- Problem Description
- Static Analysis
- Frequency Analysis
- Dynamic Analysis (Slow Force)
- Discussion
- Dynamic Analysis (Fast Force)
- Summary
- Questions

Lesson 2: Transient Shock Analysis According to MILS-STD-810H

- Objectives
- Problem Description
- Run Frequency
- Summary
- Questions

Lesson 3: Harmonic Analysis of a Bracket

- Objectives
- Project Description
- Harmonic Analysis of a Bracket
- Summary
- Questions

Lesson 4: Response Spectrum Analysis

- Objectives
- Response Spectrum Analysis
- Response Spectrum
- Project Description
- Summary
- Questions

SOLIDWORKS Simulation Premium: Dynamics

DAY 2

Course Outline:

Lesson 5: Random Vibration Analysis According to MIL-STD-810G

- Objectives
- Project Description
- Summary
- References
- Questions

Lesson 6: Random Vibration Fatigue

- Objectives
- Project Description
- Summary

Lesson 7: Nonlinear Dynamic Analysis of an Electronic Enclosure

- Objectives
- Project Description
- Linear Dynamic Analysis
- Nonlinear Dynamic Analysis
- Summary
- Questions