

Modeling Physical Systems with Simscape

OEM: MathWorks • Duration: 1 Day (8 hrs) • Code: MW-MODELING-PHYSICAL-SYSTEMS-WITH-SIMSCA

COURSE MODULES & TOPICS

Day 1 of 1

Introduction to Simscape and the Physical Network Approach

- Introduction to Simscape
- Differences between Simulink and Simscape
- Building and simulating a model in Simscape
- Guidelines for Simscape modeling

Working with Simscape Components

- Describing Simscape component fundamentals
- Using the Simscape Foundation Library
- Setting initial conditions
- Logging physical variables

Connecting Physical Domains

- Creating multidomain physical components
- Modeling ideal and nonideal connections between physical domains
- Dividing components into subsystems
- Parameterizing models

Combining Simscape Models and Simulink Models

- Connecting physical signals and Simulink signals
- Performing operations on physical signals
- Controlling physical models
- Solving models with Simscape and Simulink blocks

Creating Custom Components with the Simscape Language

- Reviewing the custom component workflow
- Using the Simscape language and component structure
- Customizing an existing component
- Adjusting block appearance
- Implementing custom components