

Learning Module

Introduction to Opera-3d

This three-day course covers all main aspects of the finite element modelling process and is aimed at providing sufficient information and hands-on experience to put you on track to successfully analyse your own devices.

Objectives

The course includes:

- Introduction to Opera-3d software
- Introduction to the Geometric Modeller
- Introduction to Computational Electromagnetic, Thermal and Stress Analyses
- Introduction to the Finite Element Method
- Introduction to the Post-Processor
- Command Interpreter and Expression Analyser
- Conductors & circuits
- Modelling considerations for electromagnetic models
- Multiple hands-on sessions using typical models or you own device.

Knowledge Prerequisites

None.

Brands

Simulia

Available Releases

SIMULIA 2021, SIMULIA 2020

Duration

24 hours

Discipline

OPERA

Language(s) for selected release

English

Contents

Overview - Introduction to Opera-3d

- 1 - Introduction to the Finite Element Method
- 2 - Opera Manager and Data Files
- 3 - Introduction to the Geometric Modeller and Model Building
- 4 - Analysis Settings using Geometric Modeller
- 5 - Meshing, Scripting and Electromagnetic Potentials
- 6 - Conductors and Circuit Editor
- 7 - Post-Processor
- 8 - Getting Started with Charged Particle Simulation
- 9 - Postprocessing and Advanced Options for Charged Particles
- 10 - Velocity Solver - Modeling Motion Induced Eddy Currents