

TRAINING COURSE

LOW- AND HIGH-FREQUENCY ELECTROMAGNETICS MODELING

SCHEDULE

Day 1 Low-Frequency Electromagnetics Modeling

This course focuses on static and low-frequency electromagnetics modeling using the AC/DC Module. We will discuss:

- Available physics interfaces for electrostatics and magnetostatics simulations (FEM/BEM)
- Important modeling considerations in the frequency domain, such as skin depth and electrical size
- Built-in tools for simulating resistive and capacitive devices, coils, inductors, and magnets

Day 2 High-Frequency Electromagnetics Modeling

The second day focuses on high-frequency EM wave modeling using the RF Module. We will cover:

- Available physics interfaces and study types (frequency domain, time dependent, eigenfrequency, mode analysis, and more)
- Key features for modeling wave excitation, absorption, and lossy conductors
- Examples such as H-bend waveguides and microstrip patch antennas

SPEAKERS

Aline Tomasian, COMSOL, Inc.

James Christopher, COMSOL, Inc.

Viswajith Hanasoge, COMSOL, Inc.

SUGGESTED

This course assumes some familiarity with the basic concepts of electromagnetics. We strongly recommend that those new to COMSOL Multiphysics® take the COMSOL Multiphysics® Intensive course prior to attending this class.

This course is an introduction to the basics of electromagnetics modeling with COMSOL Multiphysics®. The course will include a combination of live demonstrations and hands-on exercises.

By the end of the course, attendees will be able to determine the appropriate module or interface to use for their application and understand the fundamental physics features needed to get started on building their model and analyzing the results.

FOR QUESTIONS PLEASE CONTACT
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