

PathWave RF Synthesis (Genesys) class

Course Overview

Keysight Technologies offers a modular series of training days with hands-on labs covering a wide range of topics about RF-Circuit, Electromagnetic- and System-Simulation.

What you will learn

- The Genesys user interface, features, schematic capture, simulation setup and results display.
- Linear and Non-linear Circuit simulation and Synthesis of different kind of filters
- Electromagnetic Simulation (Momentum)
- System Simulation (WhatIF and Spectrasys)

Course Type

User/Application Training

Audience

Engineers, designers, and high-level technicians, who need Genesys for design, testing and characterization of circuits and systems.

Prerequisites

A basic understanding of circuit and system design principles

Course Length

1 to 3 days

Course Format

The course combines lecture presentations with instructor guided, hands-on sessions.

Detailed Course Agenda

□ Day 1

Circuit Simulation & Syntheses

Learn the Genesys Basics

- Get familiar with the Genesys User Interface

Experience the power of the filter synthesis tools

- Create lumped and distributed filters

Linear & Nonlinear Analysis and Managing Data

- Investigate an Amplifier by linear and nonlinear simulation

Overview of Library & Model management

- Using S-Data and SPICE-models
- Create your own libraries and parts

□ Day 2

Electromagnetic Simulation

Introduction into Momentum

- Theory and typical application
- Design Flow incl. Circuit-EM-Co-Simulation

Momentum simulation capabilities

- Simulation Modes and Options
- Investigating the different EM-Ports

Antenna simulation and Interface to EMPro

- Create a Dipole antenna and display Far Field Pattern
- Exporting Layouts to EMPro

□ Day 3

System Simulation

Frequency Planning (WhatIF)

- Perform frequency planning for different scenarios

RF-Architecture Design (Spectrasys)

- Setting up a RF-System and investigate results

- Typical System-Applications

- Create and investigate a complete FM-Receiver

Modulated RF analysis for systems (Spectrasys)

- Simulate a Digitally Modulated TX Hybrid Amplifier

Delivery Location

To be defined

Delivery Dates

To be defined