



*Hands On, Measurable
Training Programs*

Introduction to CST Studio Suite

Course Code	EDU-SIMULIA 2020- CSTCOR_F
Brand & Release	SIMULIA 2020
Duration	1 day
Level	Fundamentals
Prerequisites	This course is recommended for electromagnetic simulation analysts.

Objectives:

Throughout this course you will become familiar with the basic usage of CST Studio Suite in terms of its modeling and simulation capabilities. Participants will learn about the general setup, submission, and result analysis procedures for high-frequency 3D electromagnetic simulations.

Class Structure:

Upon completion of this course you will be able to:

- Navigate the general layout of the CST Studio Suite interface
- Generate CAD geometries within the native modeling interface
- Set up the project environment with the desired units, frequency settings, background materials and boundary conditions
- Understand the various material types that exist and how to define them
- Setup excitations using lumped elements and waveguide ports
- Setup result monitors to obtain 2D/3D field data
- Choose and set up the most appropriate solver and algorithm for high frequency applications
- Run Time-Domain (FIT) and Frequency-Domain (FEM) simulations including parametric sweeps and optimizations
- Analyze simulation results such as S-parameters, voltages, currents, 3D nearfields and farfields
- Extract data from the standard result set using post-processing templates

Class Lessons:

Lesson 1: Introducing CST Studio Suite
Lesson 2: Basic and Advanced Modeling Techniques
Lesson 3: Solver Overview
Lesson 4: Ports, Materials and Boundaries
Lesson 5: High Performance Computing
Lesson 6: Results Handling and Postprocessing
Lesson 7: Optimizer Overview