



DIGITAL SOLUTIONS

SIMULATION-DRIVEN DESIGN AND SHAPE OPTIMIZATION WITH CAESES - ADVANCED

Course code: SE-32
Duration: 3-5 days

Prerequisite:

Good knowledge of CAE simulation is preferred as well as basic knowledge of CAD modeling. Some experience using CAESES is required, and it is preferred that you have completed the introductory course SE-31 Simulation-driven shape optimization with CAESES - Introductory or that you have gone through the first two sections of tutorials.

DESCRIPTION

This course includes advanced topics relevant to your specific application. Examples include advanced meta-surface modeling (such as for ship hulls, turbomachinery blades and volutes, aerodynamic bodies, etc.), transformation of existing geometries, feature scripting, coupling to your specific CFD or CAE tools, and setting up the automation process. By the end of the course, you will have the ability to create the automatic optimization set-up for your industrial project.

LEARNING OBJECTIVES

Learn how to use advanced techniques in CAESES to perform automated shape optimization studies. Typical examples include reducing the resistance of your hull-form, maximizing the efficiency of your pump, lowering the pressure losses through your duct or manifold, or improving the sea-keeping behavior of your offshore platform.

TARGET GROUP

CAE engineers who have a solid background in simulation (e.g. CFD, FEA, seakeeping) and are using these codes to drive their mechanical or hydrodynamic designs.