

# Sample Project: Mechanical design and simulations

| Code         | EN1318                             |
|--------------|------------------------------------|
| Programme    | TRAIN-PTES                         |
| Department   | EN                                 |
| Responsible  | 58497 - Ms. Ofelia Ionela Capatina |
| Created by   | 58497 - Ms. Ofelia Ionela Capatina |
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| Date Created | 04-JUN-09                          |
| Date updated | 28-MAY-14                          |

#### Title

Mechanical design and simulations

## Description

The Mechanical and Materials Engineering Group (MME) of the Engineering department (EN) is in charge of engineering support for the maintenance of CERN facilities and the manufacturing of prototypes as required for CERN projects. The selected candidate will work in the frame of the Mechanical Design sections, to perform mechanical analysis for various CERN projects: HL-LHC, HIE Isolde, CLIC, ELENA, AWAKE, upgrade of LHC injectors. He (she) will use advanced analytical and numerical methods (Finite Element Method, Mutiphysics analysis) to perform calculations in several domains such as: structural mechanics, thermo-mechanical calculations, modal analysis, transient dynamics - vibrations induced by mechanical shocks, thermal shocks, and flow-induced vibrations.

#### Skills

## **Disciplines**

Mechanical Engineering

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