

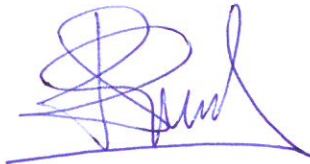
INDUSTRIAL TRAINING EVALUATION – LORENZO GRACIA

This document is to confirm that Lorenzo Gracia, student in the Master on Numerical Methods in Engineering has performed his Industrial Training in CIMNE, from 01/10/2015 to 31/12/2015.

His duties have been:

1. Benchmarking of the Solid Mechanics Application (Linear Elasticity)
 - Thin plate under axial load
 - Thin plate under dead weight
 - Beam under point load
 - Flexion of 3D beam
 - Z Cantilever
2. Detection and reparation of 20 nodes Hexahedron
3. Detection of errors in writing files of the Solid Mechanics Application
4. Creation of Dam Application (Kratos)
 - Implementation of Bofang Formulation for B.C.
 - Implementation of Hydrostatic pressure for B.C.
 - Implementation of new constitutive law for thermo-mechanics computations
 - Implementation of new element to can represent new output parameters

He has acquired the necessary skills described in the work plan as; fundamentals thermal, mechanical and thermo-mechanical analysis and code implementation and validation. Also, the student has acquired some extra skills related to Kratos environment.



Date: January, 19th 2016

Signed: Fernando Salazar González. CIMNE-Madrid Director
Tutor of the University-Company Educational Cooperation Programme