# INDUSTRIAL TRAINING REPORT

# Albert Capalvo Viladot

## Evaluation of the internship work:

Mr. Albert Capalvo Viladot, student of the Master in Numerical Methods at CIMNE, has been performing the industrial internship at Quantech company from 24/10/2016 to 10/02/2017 carrying out a minimum of 450 hours of intensive research work.

He has studied and researched in the field of Phase-change models in order to implement a material model aiming to simulate the precipitation of steel components during the Quenching cooling process. He could compile a very good number of research work works on that field, covering the full complexity involved in this type of industrial process.

He was able to appropriately develop and implement the TTT transformation model, employing Matlab and Fortran programming codes. The validation with benchmark tests was accurately performed showing good correlation with the literature.

#### Evaluation of written document:

Detailed documentation was elaborated, compiling all the work done. High quality written material was created, were Mr. Albert compiled this work with precise language and easy readability. Lots of convenient images were included, which make the reading more profitable. Full bibliographical references were provided together with a concise concluding section.

### **Evaluation of the student:**

Throughout the internship work, Mr. Albert demonstrated extraordinary attitude together with great capability. He was also very interested in the matter from the very beginning, taking personal initiative frequently. I trust he would fit in any work team due to his special qualities.

#### Overall mark:

- o Insufficient
- Sufficient
- o Good
- o Excellent
- Outstanding

Place and date:

Barcelona, February 28th, 2017.

Company supervisor's name and signature: Dr. Fernando Rastellini Canela (Quantech ATZ, S.A.)