CIMNE

# Master on Numerical Methods in Engineering

## ACCEPTANCE OF INTERNSHIP WORK PLAN

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|---|---|
| Name of the student | **Yuyang Wang** |

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| Company/Institution/ Department | **LaCan** |
| Name of the external supervisor | **Pablo Saez** |
| Start and end dates | **09/01/2016-12/31/2016** |
| Total number of hours | **450** |

Topic: A coupling procedure for the convectio-difusion problem and the stokes problem

Main tasks:

The student will work on two problems studied during the Finite Element in Flows course at the Master in Numerical Methods in Engineering. These two problem are the convection-diffusion and stokes problems.

In industrial application these two phenomena appear together in a strong coupled fashion. One classical application is in the transport of air contaminants. In some circumstances, the stokes problem that model the convective part of the problem is conditioned by the amount of contaminants and, in the other way around, contaminants are convected by the underlying stokes problem.

The work proposed for this industrial training aims to couple these two well defined problems, deeply studied during the master course, and introduce to the student to real world application of the methodologies taught during the master courses.

**Any change in the information contained in the internship agreement must be authorized by the local master coordinator.**

Date: 5/11/2016

Student's signature

External supervisor'signature

Antonia Larese