Project budget

The present document explains the budget for the realisation of the project. All the tasks entailing an expense are gathered in the following table.

Table 1: Partial cost of each task and total cost of the project.

Task	Price per unit	Units	Total
CFD MESH	0,05 €/h·cpu	144	7€
MN4 SIMULATIONS	0,05 €/h·cpu	182784	9140€
POSTPROCESS	0,05 €/h·cpu	432	32 €
REPORT	0.3€/kWh	90 kWh	27 €
COMPUTER	1400 €	1	1400 €
STUDENT WORK HOURS	15€/h	410	6150 €
TUTOR WORK HOURS	30€/h	150	4500 €
		TOTAL	**21256 €**

The computational costs have been expressed in terms of price per hour per CPU, and divided into the three main tasks performed which are: meshing, simulating and postprocessing. The meshing procedure has taken 3 hours, from the three meshes and 48 CPUs for each mesh, making a total of 144 units.

The part of simulating is the most expensive one. In total, 9 cases were run summing a total of 126 hours. If considering the number of CPUs used for each simulation, a total of 182784 units have been used, being the total cost 9140€.

The postprocessing process is done with 48 CPUs and takes half an hour for each one. Taking into account that there are 9 cases that have been postprocessed with three different integration times, this makes a total of 648 units. The cost of the postprocess is 32 €.

Other costs taken into account are the energy consumed while making the report and other online tasks, which has a cost of 27€according to the actual electricity price, the cost of the computer used which is 1400€, and the working hours of the student and the tutor, that take a very important part of the total cost.