MASTER’S DEGREE IN SPACE AND AERONAUTICAL ENGINEERING

Development of Computational Fluid dynamic codes for the numerical resolution of the Navier-Stokes equations applied to benchmark problems using finite volume method.

Budget

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BUDGET
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At the time of evaluating the economic aspects for the realization of this project we have decided to divide it into two groups that are the following:

1. **Human Resource:** Many hours of work have been devoted to the realization of this work. In 4 months of work, 465 hours have been dedicated. Within these hours are included the development of work algorithms, simulations, new studies and the development of the final report.

2. **Computational Resources:** As far as software is concerned, the MATLAB programming language has been provided by the UPC, which has been very helpful. The hardware used is an HP Pavilion Core i7 that is my property which allowed me not to have additional costs.

The criterion chosen to assign the price per hour is related to the list that the Generalitat de Catalunya [1] publishes about the salaries that an industrial engineer can earn, these prices range from €1680 to €3355 per month, for this project we have chosen to assign a value of €1680 per month which results in €10.5 per hour.

<table>
<thead>
<tr>
<th>Concept</th>
<th>Items</th>
<th>Cost per hour</th>
<th>Total hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human resources</td>
<td>Thesis work (developments of algorithms, simulations, Report)</td>
<td>10.5 €</td>
<td>465</td>
</tr>
<tr>
<td>Software</td>
<td>Mendeley  UPC license</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Matlab  UPC license</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Microsoft Office</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hardware</td>
<td>Laptop HP Pavilion CORE i7</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total Thesis work</td>
<td></td>
<td>4.882 €</td>
<td></td>
</tr>
</tbody>
</table>

*Table 1: Thesis Budget*
REFERENCE