



Development of a tool for the estimation of rooftop solar photovoltaic generation

Document:

Final report

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FINAL DEGREE PROJECT



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List of abbreviations

- UPC: Universitat Politècnica de Catalunya

1 Hours dedicated

According to the activities developed and the chart diagram defined at the beginning of the project, 454 hours have been spent on the development of the tool for the estimation of rooftop solar photovoltaic generation. Shown in tables 1 and 2.

Table 1 Identification of activities dependency

COD	Activity	Preceded	Hours
0	Start of the project	--	15
1	Project charter	0	12
2	Introduction to Python programming	0	30
3	Download system requirements	0	30
4	Execute the Solar Potential Estimation Module	1, 2, 3	40
5	Improve the Solar Potential Estimation Module	4	50
6	Implement the new code in SAM	5	140
7	Validate the results	6	60
8	<i>Memory and attachments</i>	7	35
9	Tracking meetings	--	22
10	Final presentation	8	20
Total hours			454

Table 2 Chart diagram of the activities developed

	February				March				April				May				June				July	
Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
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Considering the UPC criteria [1], the recommended salary for undergraduate students who carry out external internships as a training activity in a company or institution outside the university is €8.75/hour. This means a total cost of 3972,50€.

Table 3 Total cost of the dedication

Position	Salary	Total hours	Cost
Junior engineer	8,75€/hours	454	3.972,50 €

2 Equipment

The equipment used during the six months of the project:

- Software: All the software used is open source.
- Hardware: The personal computer used.

Table 4 Cost of the equipment used during the development of the Project.

Equipment	Price	Amortization	Cost (6 months)
iMac	2.000 €	10 years	100 €

3 Total cost

The total cost of the development of a tool for the estimation of rooftop solar photovoltaic generation is of 4072,50 €.

Table 5 Total cost of the project

	Cost
Dedication	3.972,50 €
Equipment	100 €
TOTAL	4.072,50 €

4 References

- [1] UPC, "Empresa. Pràctiques externes," 2022. [Online]. Available: <https://eseiaat.upc.edu/ca/empresa>. [Accessed 10 June 2022].