

# University of Extremadura Faculty of Science

# Physics degree Degree Final Project

Developement of a FIWARE-based application for tree species monitoring (dendrometry)

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### **Abstract**

This document gives a detailed description of this project, which is focused on researching possibles low-cost alternatives for wireless dendrometry systems. Currently there exist a lot of expensive and professional systems in the market, that's because this project is intended to reduce costs and increase the versatility, scalability and accessibility.

In order to reach these objetives the project will be supported over free software such as FIWARE[1] or free hardware such as Arduino[2] and RaspberryPi[3].

### 1 Introduction

This project arises itself from a direct interaction with professionals inside forestal sector. The original idea was to give technical coverage for particular necessities which professionals in this sector had to face off with. At this point is easy to notice this solution will need to be a distributed solution, due high samples dispersion.

#### References

- [1] e. FIWARE Foundation. (2020). Fiware home,
  [Online]. Available: https://www.fiware.org/(visited on 05/2020).
- [2] A. company. (2020). Arduino,

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- [3] R. P. Foundation. (2020). Raspberry pi,

  [Online]. Available: https://www.raspberrypi.org/(visited on 05/2020).