

# Dissertação de Mestrado em Engenharia Informática (2017/2018)

**Title:** Development of a tool for analysis of data for air quality

**Supervisor:** Prof. Nuno Pombo

**Co-supervisors:** Prof. Nuno M. Garcia (UBI)

## Summary

Health and quality of life has increasingly been associated with environmental variables, such as air quality. Currently, there is public data from air quality monitoring but unfortunately, there is little published research on tools to analyze such data sets.

## Objectives

The purpose of this work is to develop a tool for analysis of data for the assessment of air quality, in its variable parameters. The data is publicly available from a number of academic repositories, and includes values for CO, Non Metanic Hydrocarbons, Benzene, Total Nitrogen Oxides (NOx) and Nitrogen Dioxide (NO<sub>2</sub>). The research work shall produce a paper on the analysis tool, and also the dissertation.

## Tasks

- T1 – Technological background study;
- T2 – Review the State-of-the-art on environmental analysis for air;
- T3 – Requirements Analysis;
- T4 – Design and construction, including integration;
- T5 – Testing and evaluation;
- T6 – The writing of the dissertation.

## Expected result

In this research work the following deliverables are expected:

- An application;
- A conference paper describing the process.

## Timeline

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
T1	X	X									
T2		X	X								
T3			X	X							
T4				X	X	X	X				
T5							X	X	X		
T6						X	X	X	X	X	

## References:

n/a

## Requisites

The student will be selected after an initial screening process that will include the assessment of his/her ability to work in this area, his/her skills on analyzing a scientific paper and his/her skills on writing text for a scientific paper.