

Dissertação de Mestrado em Engenharia Informática (2017/2018)

Title: Creation of audio fingerprinting tool

Supervisor: Prof. Nuno M. Garcia

Co-supervisors: Prof. Bart van Rumste (KU Leuven, Belgium)
Prof. Nuno Pombo (UBI)

Summary

Audio signals can be used for a very wide variety of purposes, including the inference of ambiance and context for Ambient Assisted Living applications. Nevertheless, there is not much research done on the means that allow the identification of environments using audio cues.

Objectives

The purpose of this work is to develop an audio fingerprinting tool that will allow an application to compare different audio signatures with a library of well know audio fingerprints. The tool must be able to identify the context/ environment in which the sampling machine is located by means of its audio fingerprinting.

Tasks

- T1 – Technological background study;
- T2 – Review the State-of-the-art;
- 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.