Septembre 2020

MSc Student/Intern project

# Sensing Environment from Social Media Networks

## Description of the research project

Social media users are likely to commonly share observations that may be useful for the monitoring of environment, health and several issues. For example, a Tweet, accompanied with a photograph, reports a cleanliness problem in a city.

This project aims to develop a prototype system for the discovery and fusion of information from social media for the early detection and monitoring of environment including several issues (e.g., health, safety, security). In the second part of the project we study the proactive sensing and monitoring by means of crowd sourcing. We aim to design and develop a mobile application that allows users to post and tag environmental information to dedicated social media streams.

## Keywords

Smart City, Big data, REST API, Android, Dynamic and adaptable systems, Context aware services, Real life deployment.

## Required skills/background

- Strong motivation towards this challenging project
- Skills in data mining, artificial intelligence, Android, and programming C++

## Role of the student/Intern

The student/intern will be involved in the following tasks:

- Design a model and techniques to sense environmental information from social media networks.
- Implementation of environmental sensing models.
- Design and implement a reasoning engine based on data mining and artificial intelligence techniques to analyze data gathered from environmental sensing.
- Design and implement a tool to detect specific issues (e.g., health, safety, security threats)

## Application

Interested applicants email a detailed CV, transcripts and motivation letter to the lab director. The successful candidate will be contacted shortly after processing the received applications.