AI for next generation UltraSmart Recycling

Background

Material characterization in the recycling process is a key requirement for all recycling equipment in the next new generation of urban waste management systems. These systems will implement user-rewards mechanisms in order to promote complete recycling. The rewarding process involved requires material certification in the waste sorting equipment.

ReCircula is a start-up developing solid waste equipment for the urban environment. The existing sorting techniques have high maintenance costs and are therefore complex and expensive.

The aim of this joint project between ReCircula and UPC, BarcelonaTech, is the design and fabrication of electronic equipment applying AI techniques to the acoustic characterization of solid waste. ReCircula is working to implement real pilot trials with some important city councils from Catalonia. It has also been awarded with:

- Phase 1 SME Instrument: one of the most competitive grants in the European market.
- CleanTechCamp prize (from Innoenergy).
- Circular Economy grant from Agencia de Residuos de Catalunya (ARC).
- Accepted in Highway from Innoenergy.

We are looking for 2 years PostDoc in Industry in partnership with university.

- Applicants must have completed the PhD at the moment of application (before 14th February).
- Expiration date job offer: 08/02/2019
- Project starting date: March 2019.
- Salary: 27.000 – 31.000 € depending on the experience of the candidate.

Objectives

- Device and process for waste characterization, using acoustics: application of AI learning techniques to material classification using acoustic signals.
- Embedded system implementing the algorithms and controlling sensors.

Requirements (PhD is required)

- Proven Experience in Machine Learning and Deep Learning techniques in signal processing (preferably in acoustics, or speech or vision)
- Design and programming of embedded systems. Experience in Sensor electronics.
- Experience in implementation of Deep learning solutions for on device and embedded applications will be positively valued
Contact

If you are interested in the offer or you want more information, please contact Prof. Elisa Sayrol (Elisa.Sayrol@upc.edu) or Prof. Manel Dominguez (C4-202, Manuel.Dominguez@upc.edu) before 08 February.