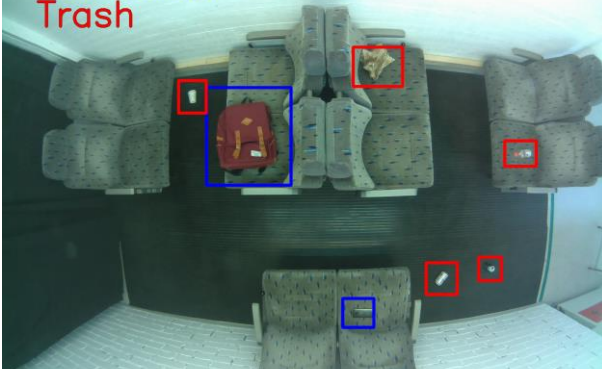


ANTI-TRASH – Smart trash detection and damage prevention for shared mobility


About the project:

The project will demonstrate a machine-vision based trash detection system, an odor detection system as well as develop materials more suitable for shared vehicle applications.

Valuables Trash



Duration: 01/2020 – 12/2020

Funding: 456,825 € 

Contact person:

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Project partners:

- Aalto University (Lead)
- NFF (Institute of Automotive Management and Industrial Production)
- UPC (Polytechnic University of Catalonia)
- CARNET
- SEAT S.A.
- Zone Cluster Ltd.
- City of Hamburg (Hamburger HOCHBAHN AG)
- Electrobus Europe

Problem / Motivation:

In response to major mobility problems in cities and with the objective to increase the quality of life of their citizens, there is a need to reduce the number of private vehicles and promote the use of shared and public transport services. The core problem is that users do not feel attached to these vehicles and they tend to treat the interior disrespectfully and carelessly. This behavior leads to user discomfort and reluctance, and contributes to high operational and maintenance costs for service providers.

The Anti-Trash project attempts **to revolutionize in-cabin user experience of shared and public transport services**, as well as to make operation of these vehicles much **more efficient and cost-effective**.

Approach and project objectives:

Four main outcomes are expected from the Anti-Trash project:

- (i) an in-camera vision system for the automatic trash and damage detection inside shared and public vehicles;
- (ii) an in-cabin air quality monitoring and management system to ensure comfort and well-being;
- (iii) a communication infrastructure and digital platform gathering the outputs of both systems for the efficient management of fleets;
- (iv) novel material applications and new interior designs for trash and damage prevention.