

Designação do projeto | AUTOMOTIVE: AUTOMATIC multimodal drowsiness detection for smart VEHICLES

Código do projeto | POCI-01-0145-FEDER-030707 -PTDC/EEI-EEE/30707/2017

Objetivo principal | Reforçar a investigação, o desenvolvimento tecnológico e a inovação através do desenvolvimento de um software capaz de ser integrado em veículos com sensores no volante para detectar a fadiga e sonolência do condutor.

Região de intervenção | Norte e Lisboa

Entidade beneficiária | INESC TEC - Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência

Data de aprovação | 18-07-2018

Data de início | 01-10-2018

Data de conclusão | 2021-09-30

Custo total elegível | 238 785,98€

Apoio financeiro da União Europeia | FEDER: 162 752,92€

Apoio financeiro público nacional/regional | 75 725,56€

The project aims :

The objective of this project is to develop software capable of being integrated in vehicles with sensors on the steering wheel to detect driver fatigue and drowsiness.

The invention of the automobile has transformed how people live, work, and interact in society. Today, with an ever-increasing number of in-vehicle features, a considerable amount of new demands needs to be taken during the design and testing of new vehicles. According to the World Health Organisation, a non-negligible portion of road accidents is drowsy driving. In order to mitigate this tendency, automated driving is being explored. Drowsiness detection systems are starting to be introduced during vehicle design. This step, however, stumbles upon the observation that each driver presents a distinct set of behavioural and physiological manifestations. In the present project, an extensive study regarding the use of signal processing and computer vision with machine learning techniques for biometric multimodal driver-specific drowsiness detection in smart vehicles is proposed.

