SMARTBUS: Smart Integrated Solution for Public Transportation Bus Fleets

European Union (EU) EUREKA Initiative for Packaging & Integration of µDevices & Smart Electronic Systems (EURIPIDES) labelled research and development project (EURIPIDES project no: 16-0601) including 2 project partners from Turkey and United Kingdom

Abstract

Public transportation companies need to switch to intelligent transportation systems in order to manage their operations in the field in a more efficient and auditable way. This technological transformation in public transport fleets brings many advantages and results in a complex and heterogeneous structure of information technology. The process of harmonization of heterogeneous software / hardware systems, which are often used by different manufacturers, is very time consuming. In addition, the implementation of different communication protocols increases the complexity of the system and makes it difficult to manage. Recently, Information Technology for Public Transport (ITxPT) standard has been defined to enable companies to provide intelligent transportation technologies to fleets with the clear standards of this complex infrastructure. In this project, an information system platform, is developed which provides communication services and device interfaces in accordance with the ITxPT standard and definitions among in-vehicle equipment for public transport fleets. Design and implementation of the integrated software modules required for the ITxPT compliance of the functions of public transport fleets, such as fleet management, vehicle tracking, collection of vehicle information from in-vehicle networks, in-car passenger information, which must be communicated with each other via standard protocols are realized within the scope of the project.

Start Date: July 1, 2018

End Date: June 30, 2020

Project Partners:

Turkish Partner:

kentkart

UK Partner:

zeta
Automotive

Dr. Kardas worked as the consultant for the project partner Kentkart Ege Electronics Automatic Fare Collection & Vehicle Tracking Systems Co.

Related Publications:

1. Aydin, M. B., Oz, C., Cetin Tulazoglu, D. and Kardas, G. (2019) "*Development of an ITxPT compliant Information System for Public Transportation Vehicles*", Journal of Intelligent Transportation System and Applications, vol. 2, no. 2, pp. 1-13 (in Turkish).

More Info:

https://www.euripides-eureka.eu/projects