

Visual and acoustic information on public buses

A project to enable the safe and independent use of public bus transportation for persons with visual or hearing impairments, designed also to assist persons with all physical, mental or sensory conditions. A new information technology has been developed and mobile applications introduced.

«Universal accessibility and real-time information for all passengers - using buses in Madrid is easy thanks to a new technology ensuring equal access.»

(Rafael ORIHUELA NAVARRO)

Making public transport more accessible

Organisation:	Empresa municipal de transportes de Madrid (EMT)
Country/region of origin:	Spain
Beneficiaries targeted:	Persons with visual or hearing impairments
Approach/model/solution:	Visual and acoustic information systems, mobile applications

FACTS & FIGURES

- 2,000 vehicles of EMT provide visual and audio information
- 364 information panels at bus stops
- Applications receive 9 million visits per month

PROBLEMS TARGETED

Public transportation is not easily accessible for persons with visual and hearing impairments who would like to navigate the city in a safe and independent way. The use and further development of ICT and Augmented Reality applications help to make public transportation more accessible. The aim of the practice is to make the use of the public bus transportation easier for everyone, regardless of their physical, mental or sensory conditions.

PROJECT

A series of actions that introduced the concepts of ICT have been implemented:

- Visual and acoustic information systems installed inside and outside the bus and at bus stops
- Systems based on mobile phones, with voice recognition and synthesis
- Innovative mobile applications, such as a voice guidance system to use the bus, including Augmented Reality

CURRENT SITUATION & OUTLOOK

To facilitate the use of the bus service by persons with visual impairments, visual and acoustic information is provided both inside and outside the vehicle. It indicates the position of the bus, the line number, the direction and information about the route once the bus arrives at the bus stop. The information panels at the bus stop include audio information that can be activated through a simple button or by activating Bluetooth on the mobile phone. A telephone service provides automatic information about the estimated time of arrival at each stop. The website has also been created in an accessible way, implementing the INCLUSITE tool, which includes features like control by voice, noise or gesture.



Augmented Reality: information superimposed over the real image captured by the phone camera improves the user guidance.

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EXPERT VOTING Top marks from:


- all voters

Nominated by: Francisco Javier Rubio DE URQUÍA, Ayuntamiento de Madrid. Área de Movilidad