REAL-TIME COMMUNICATION SYSTEM BETWEEN DEAF AND HEARING PEOPLE

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RESUMEN

The Robotics and **Three-Dimensional Vision (RoViT)** research group at the University of Alicante has developed a **real-time** communication platform between the hearing community and the deaf community using sign language. All this in a simple and **bidirectional** way through natural language processing techniques and the camera and the screen of a computer or mobile device.

The group is looking for companies interested in acquiring this technology for commercial exploitation or in developing it to adapt it to new needs of the deaf community.

VENTAJAS Y ASPECTOS INNOVADORES

MAIN ADVANTAGES OF THE TECHNOLOGY

- This system works in **real time**, in a simple and fast way.
- It is able to **recognise complete sentences**, unlike other platforms that only offer sign-by-sign recognition.
- To achieve this communication, it is only necessary to have a **mobile device** with a camera and a screen.
- The **accuracy** of the system reaches **95%**.

INNOVATIVE ASPECTS

- Allows **two-way communication**, i.e. conversion from sign to text, but also from text and/or speech to sign. Until now only sign-to-text conversion was possible.
- The system includes **facial keypoints** that allow for more accurate sign language recognition by including the analysis of **facial expressions and vocalisation of signs**.

APLICACIONES DE LA OFERTA

This system can be adapted to many areas where deaf people need to communicate without the need for an interpreter, for example: **health, financial, administrative, catering, shopping, transport, justice**, etc.

It is especially useful in the **education** sector as it allows communication with a deaf student, thus facilitating learning, by transmitting concepts and knowledge in a way that is understandable to all. More information in: https://www.sign4all.net/

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We are looking for companies or entities interested in acquiring this technology for **commercial exploitation** through patent licensing agreements or for the **development of the technology** and its adaptation to the specific needs of their activity.