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MÉMOIRE

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Thème

Hand gesture recognition

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2. Abstract:

Gesture recognition is becoming a growing field of study with too many applications such as automated sign language recognition, human-machine interaction and medical application.

In this project, we try to build a hand gesture recognition system that translates Algerian sign language to speech. We present the different technical approaches and algorithms used to detect and recognize the hand gesture and the hand gesture recognition stages from hand detection to recognition, we analyze the existing sign language application and compare them to highlight their weaknesses and strength factors.

Moreover, we extract the functionality considerations and product construction considerations and based on them and the better approach we chosen we build our system and deploy it in a web application.

In addition we present the software tools and AI technologies used to build our recognition models, and to develop our web application and we present the final result.