

Devnagri Sign Language Recognition Using Image Processing

Introduction:

People who use sign language as a primary means of communication can sometimes have trouble interacting with people who do not understand sign language. The innovation translates the Devnagri Sign Language alphabets into readable text and then further into audio.

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Phase 1: Acquisition and study of Devnagri Sign Language.

The following image consists of Devnagri Sign Language alphabets:



Fig 1: Devnagri Sign Language alphabets

Phase2: Creation of database consisting of Devnagri Sign Language alphabets (approx.26 alphabets) using image processing as shown in figure 1.2:

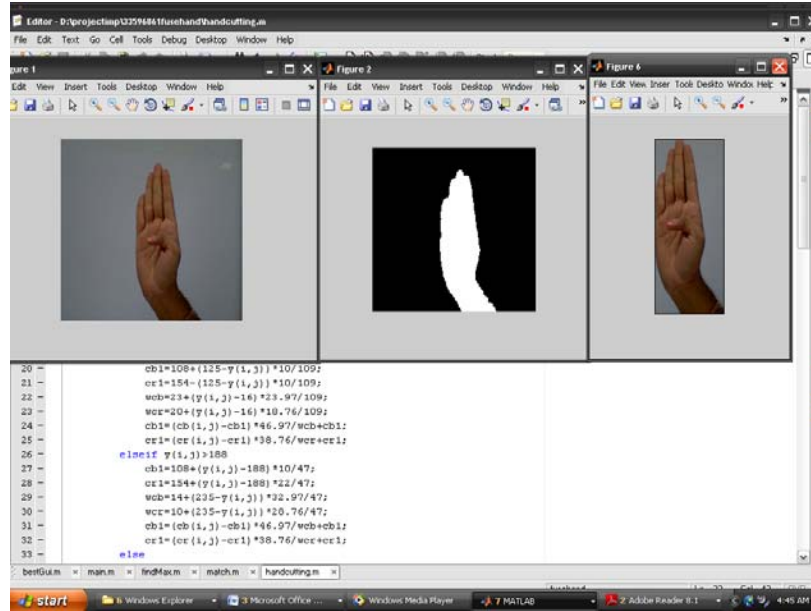


Fig1.2: Image Extraction

Phase3: Construction of prototype system which captures real-time images and compares it with images of created database.

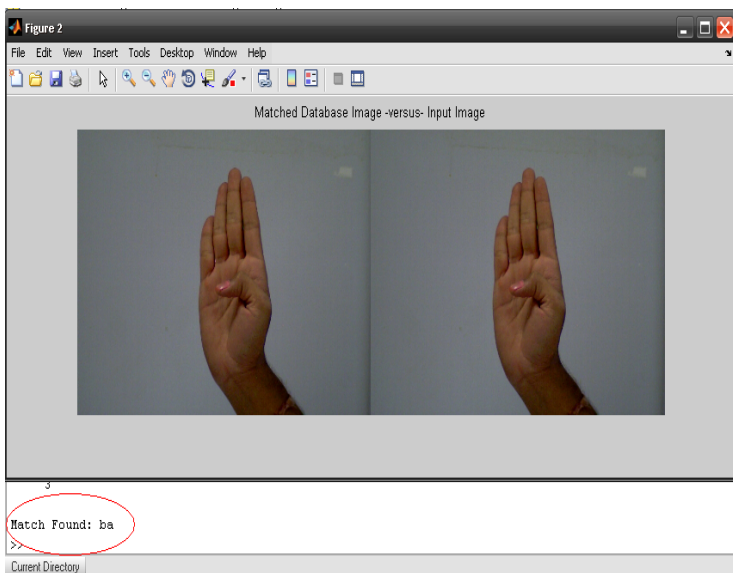


Fig2: Snapshot showing matching of two signs and result.

Phase 4: Removal of errors with the help of certain threshold value.

Phase 5: Conversion of corrected Devnagri Sign Language alphabets into text and further into audio with the help of text to voice converter.

A System with Camera Interface



Project Group with Set up