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Pattern Recognition and Image Analysis
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Abstract

Deaf and dumb people communicate among themselves using sign languages, but they find it difficult to expose themselves to the outside world. This paper proposes a method to convert the Indian Sign Language (ISL) hand gestures into appropriate text message. In this paper the hand gestures corresponding to ISL English alphabets are captured through a webcam. In the captured frames the hand is segmented and the neural network is used to recognize the alphabet. The features such as angle made between fingers, number of fingers that are fully opened, fully closed or semi closed and identification of each finger are used as input to the neural network. Experimentation done for single hand alphabets and the results are summarized.

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Index Terms

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Keywords

Indian Sign Language Recognition Hand Gesture Recognition Neural Networks
Activation Function