

RETRACTED CHAPTER: Implementation of Hand Gesture Recognition System to Aid Deaf-Dumb People

Advances in Signal and Data Processing pp 183-194 | Cite as

- Supriya Ghule (1) Email author (ssghule@mitaoe.ac.in)
- Mrunalini Chavaan (2)

1. VLSI Design and Embedded System, School of Electrical Engineering, MIT Academy of Engineering, , Alandi, Pune, India

2. School of Electrical Engineering, MIT Academy of Engineering, , Alandi, Pune, India

Conference paper

First Online: 12 January 2021

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Part of the [Lecture Notes in Electrical Engineering](#) book series (LNEE, volume 703)

Abstract

In recent years, the population of deaf-dumb victims has increased because of birth defects and other issues. Since a deaf and mute person cannot talk with an ordinary person in order that they ought to rely on some kind of communication system. The gesture shows some physical movements of the hand that convey a piece of information. Gesture recognition is the analytical interpretation of the movement of an individual through an information processing system. Linguistic communication provides the most effective conversation platform for the mute person to speak with an ordinary person. The aim of this paper is to build up a time system for hand gesture recognition that acknowledges hand gestures and then converts them into text and voice. In this paper, efforts have been done to detect 8 different gestures. Each gesture has assigned unique sound and text output. In experimental results, 800 samples were taken into the consideration out of which 760 samples were detected correctly and 40 samples were detected wrongly. Hence, the proposed system gives accuracy of 95%.

Keywords

Raspberry Pi Python OpenCV Feature extraction Contours