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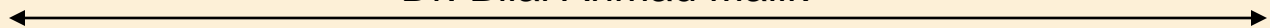
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GESTURE RECOGNITION SYSTEM

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ABSTRACT:

As we know Difficulties faced by hearing impaired and Speech impaired is very prevalent in today's society. Such kind of people are unable to interact with anyone due to their problem and most important problem is that they are unable to convey their message and their thoughts. Gestures considered as the most natural expressive way for communications between human and computers in virtual system. In the method of Hand gesture is of non-verbal communication for human beings for its freer expressions much more other than body parts. So To overcome this type of problem and to make them easy to convey the message and how easily they can communicate. We are going to developed system known as "Gesture recognition system". In this System, We are going to show alphabets and Numbers. This can be shown by hand gesture and for representing alphabets and numbers we are going to use sign language. To communicate with them one need to have knowledge about the various sign languages used by them.

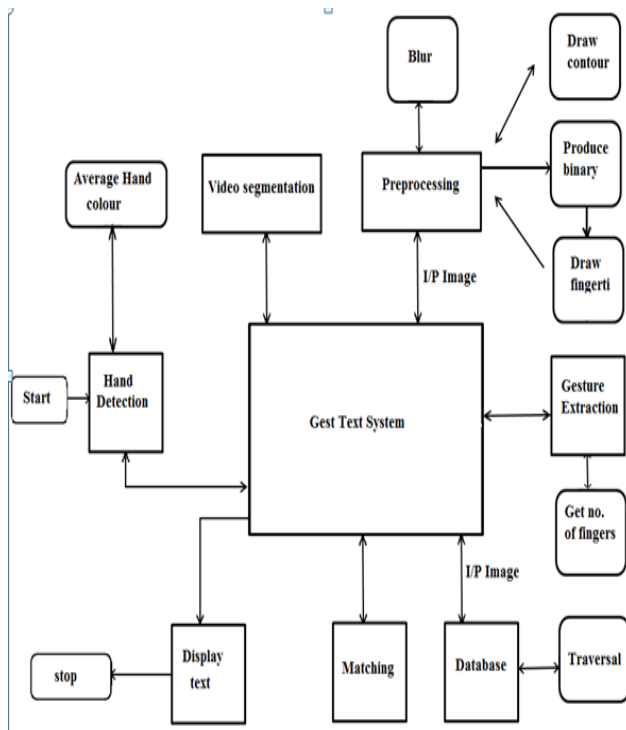
Keywords: Hand gesture, Moment feature extraction method.

I. INTRODUCTION

Gesture Recognition is a sign language technology with the goal of human gestures via Neural network algorithms. Gesture can be originate from any hand motion. Currently focuses in the field which include hand gesture movements. We are simply using gesture to control or interact with our system without physically touching system. We searched that many approaches that include cameras and computer algorithm to recognize the sign language. To Reduce the gap between User and machine, so we are using GUI i.e Graphical User Interface that help the user to interact with system in easy way and so it can understand the hand gestures movements easily.

The objective of this paper is to design a hand gesture recognition system that works in real-time and recognized manipulative hand gestures. In our system we are going to use Neural Network Technology that depends on previous output to give the present input. In this technology we are using multilayer feedback propagation each one of these gestures represents a particular job. This paper

concern to design a feature extraction method so that the system can recognize hand gestures captured in different angle or orientation or size.



II. RELATEDWORKS

There some previous system which uses hand glove for hand gesture recognition as compare to our system we are not using hand glove instead of that we are using our own hand for gesture detection by learning sign language . Through hand glove it can providing easily exact coordinates of palm and finger's location .In this system they are using radiant technology to detect the gesture of user. And every time users have to wear hand glove and it have

to be physically connected to the system. They perform 3 major stages:

- 1) The first stage is the object detection by the system
- 2) The second stage is object recognition. The detected hand objects are recognized to identify the gestures
- 3) The Third stage is instructs or behavior of analysis. In this paper, motion-based Static gesture recognition system for interaction between human and computer system is proposed.

III. PROPOSEDSYSTEM

Gesture recognition is the ability of a device to identify and respond to the different gesture of an individual. Most gesture recognition technology can be 2D-based or 3D-based, working with the help of a camera-enabled device, which is placed in front of the individual. The Key advantage of gesture recognition technology is that no physical contact is required between the individual and the gesture recognition-enabled device. we to create a system that encompasses all these levels in the future. To start with it focuses on alphabets, digits and the technique of finger spelling, used to convey messages

IV. IMPLEMENTATION

In XML there are some property for handling image then it converted into binary image.

1. Image ID:Id is a unique identifier ,which is not replicated to another id .

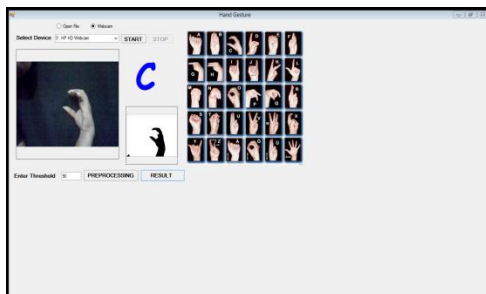
Eg:<ImageID>a50d657c-f63b-4619-a4f930f730ff5a54</ImageID>

2. Image Name :Image name is what you want to name that particular image

Eg:<ImageName>c.jpg</ImageName>

3. Descriptor: It consist of xml version ,rows and columns bytes of an image.

Eg:Descriptor><?xmlversion="1.0"encoding="utf-16"?>< Matrix Of Single Rows="235" Cols="128"; bytes; AAAAAA</Descriptor>



V. CONCLUSION AND FUTURESCOPE:

The complete idea and concept of the project was to make communication easier for the hearing and speech impaired by setting up a system that eliminates the need to recognize and understand the hand gesture, for people who need to talk to them. The project so far deals with finger spelling which can be used to spell out words and complete sentences; thus making it easier to communicate complex words whose gesture are not in the dictionary as of yet.

The project can be further enhanced to recognize and display words and sentences, most of which have dynamic gesture. This would require a and more efficient video matching technique.

The system can also be further extended to convert text/gesture/speech into brail so to extend its utility to the blind persons.

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