

Implementation of Communication Tool for Deaf People

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Abstract- The aim of the project is to present a system for automatic synthesis and visualization of the sign language of the deaf (SL) sentences. A significant amount of information in daily life is provided in a audible form, And the problem with this is that the information is not accessible to people with impaired hearing. Therefore implementing a Implementation of communication tool for people.

Keywords – Sign language

I. INTRODUCTION

Communication is a central aspect of our daily lives .Our ability to communicate with others through spoken language and written words dictates our access to vital resources such as education, employment, healthcare and other social services. For deaf and hard of hearing persons who use fluently sign language as their primary means of communication, reading and writing the ambient spoken language can be a laborious process because of their lower level of educational attainment. The World Federation of Deaf (WFD) recognizes that approximately 80% of deaf people do not receive any basic education, especially in developing countries. This means there are over 50 million deaf people in the world are illiterate. This data provide evidence that these members have an extreme difficulty in the acquisition and development of the dominant language and this forms a serious impediment in their access to public information and their full integration in the hearing society.

The sign language is one of the best communication language for the deaf people, and without sign language the deaf people have the big troubles in communicating with hearing people. However, they are very skilled in using the sign languages. A sign language is a set of signs. The sign in a sign language equals to a word in a written language. Similarly, a sentence in a written language equals to the sign sentence in a sign language. It gives the new method for joining video clips in video clips of complete sign sentences. The described system contains a large set of individual sign video clips, which makes possible the translation of various texts to the sign language. Words which are not in the system can be shown with appropriate message. In principle any text can be shown in the sign language. The prevalent idea in the development of a system for the sign language synthesis is to use a synthetic person. And it is helpful for present as well as next generation deaf and dumb people can be easily communicate with the hearing or normal people.

II. PROPOSED ALGORITHM

A. Deaf Communication tool-

- Creation of data base or Dictionary.
- User input unit.
- Analysis of user input unit.
- Translation unit.

- Data selection unit.
- Synthesis unit.
- Linking unit.
- Out put unit.

B. *The Functional figure as shown in figure-*

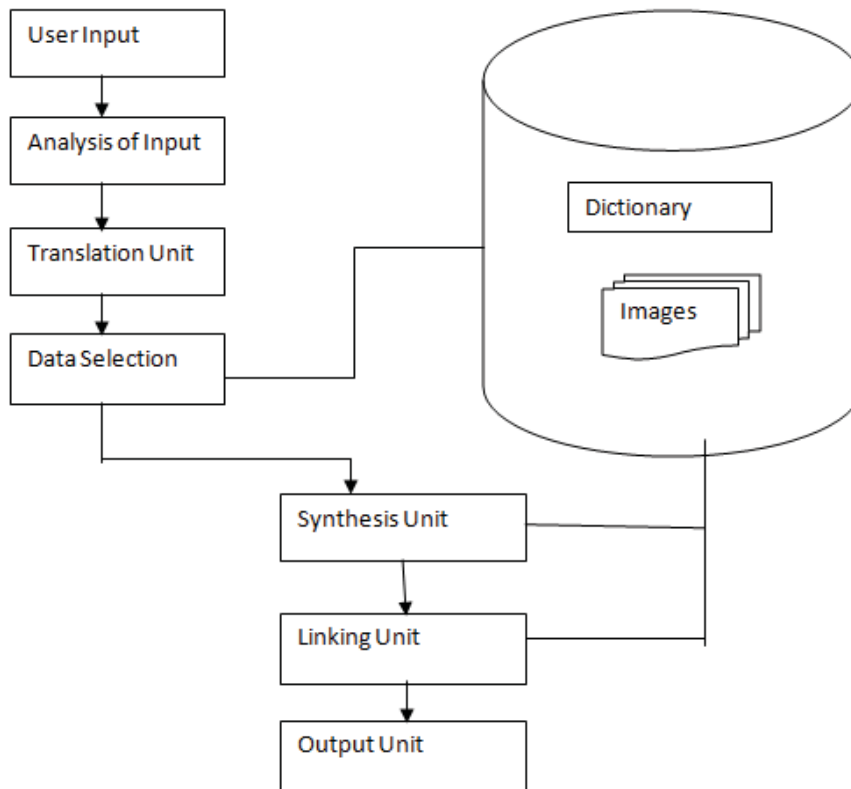


Fig 1. Deaf communication tool

III. EXPERIMENT AND RESULT

- **Creation of Database:** The creation of database means we have to capture a sign images for deaf people can easily understand and store them and it is called dictionary. It is the important part of the tool architecture because in this we have to multiple numbers of images for different words.

Sign images for words.

If we want to show a written language WHAT to a Sign language WHAT then capture the following image.

If we want to show a written language NAME to a Sign language NAME then capture the following image.

If we want to show a written language IS to a Sign language IS then capture the following image.



If we want to show a written language HAPPY to a Sign language HAPPY then capture the following image.

If we want to show a written language MY to a Sign language MY then capture the following image.

If we want to show a written language I to a Sign language I then capture the following image.



These are the some examples of sign languages for alphabets, numbers and some words. Similarly capture the sign images for different words and store them so it is called data base or dictionary.

- User input: The user enters the word or sentences. If the user entered word WHAT or Sentence I AM Happy.
- Analysis of input: The user entered word or sentences will be analysed and sentences will be divided in to fragments.

The entered word WHAT will be analysed and if sentence I AM HAPPY then sentence will be divided into fragments that is

I/AM/HAPPY

- Translation unit: The translation unit translates sentences in to individual words

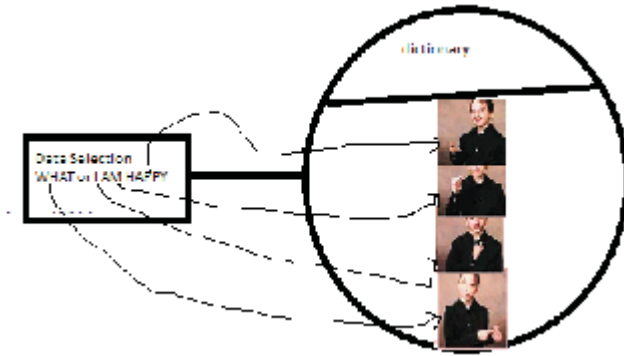
That is,

I

AM

HAPPY

- Data Selection Unit: The Data selection unit selects from the database sign images of the corresponding words, Links them up makes the series of words.



- Synthesis Unit: Synthesis Unit Synthesis the images. Synthesizer will choose the group of images in to single frame i.e. video and it will be run in a slow motion. For the IAM HAPPY sentence the all different images will be merge in to single frame as shown bellow and it will be run in the slow motion.



- Linking Unit: Linking Unit links with the dictionary i.e. sign image files.
- Output unit: The output unit gives word or sentence equivalent sign images to the user. For WHAT it will give the Sign language as shown bellow.



For I AM HAPPY sentence it will gives the bellow video with slow motion.



IV.CONCLUSION

We have presented in this paper a new deaf communication tool which gives the word in a written language equivalent sign in a sign language and sentence in a written language equivalent to a sign sentences in a sign languages.

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