© 2017 IJSRST | Volume 3 | Issue 2 | Print ISSN: 2395-6011 | Online ISSN: 2395-602X

National Conference on Advances in Engineering and Applied Science (NCAEAS)
16th February 2017
In association with
International Journal of Scientific Research in Science and Technology

An Android Messenger Application for Dumb and Deaf People

Nidhi Kawale, Divya Hiranwar, Mayuri Bomewar

Computer Technology Department, RTMNU, Nagpur, Maharashtra, India

ABSTRACT

An evolution of Information and Communication Technology has influenced every part of human life. It has modified the way we do the job, occupation, travel , acknowledge and convey. For the Deaf people group, the utilization ICT has enhance their personal satisfaction by creating frameworks that can help them discuss better with whatever remains of the world and among themselves. Gesture based communication is the essential method for correspondence in the almost totally impaired group. The issue emerges when hard of hearing individuals attempt to convey what needs be to other individuals with the assistance of these gesture based communication language structures and bad habit a versa. The application gives hard of hearing individuals a method for getting more shut to cutting edge innovation by utilizing discourse to picture interpretation. This deaf individual to learn new advances by looking toward pictures which are being changed over to pictures by utilizing discourse acknowledgment framework.

Keywords : Sign Language, Deaf and Dumb, Android Application.

I. INTRODUCTION

Almost nine billion humans on the earth are impaired of hearing and not able to speak. How regularly we run over these individuals speaking with the ordinary world? The correspondence between a hard of hearing and unable to speak individual's stances to be a major issue contrasted with correspondence amongst visually impaired and ordinary visual individuals. This makes an almost no space for them with correspondence being a principal part of human life.

In our everyday life the majority of the errand we complete includes talking and hearing. The hard of hearing and unable to speak individuals experience issues in speaking with other people who can't comprehend communication via gestures and miss-mediators. Hence forth correspondences between hard of hearing quiet and an ordinary individual have dependably been a testing undertaking.

The quantity of almost totally senseless on the planet constantly expanding and they are thoughtful shut society. In this way, Deaf-Dumb individuals don't have typical open doors for learning. Uneducated Deaf-Dumb individuals confront difficult issue in correspondence with ordinary individuals in their general public. It is outstanding, be that as it may, that most accessible application concentrate just on learning or acknowledgment of gesture based communication. The venture means to help tragically challenged particularly uneducated hard of hearing and unable to speak by giving them an appealing correspondence and as a learning instrument.

Likewise with different types of manual correspondence, Sign dialect relies on upon finger spelling. The least complex visual type of finger spelling is reenacting the state of letters noticeable all around, or tangibly, following letters on the hand.

Finger spelling can utilize one hand, for example, in American Sign Language, French Sign Language and

Irish Sign Dialect, or can utilize two hands, for example, in British Sign Language [3]. Uneducated Deaf-Dumb individuals can speak with other individuals (ordinary or

impediment) with gesture based communication just, so they confront significant issues in their day by day life. For instance: eateries, transportation, doctor's facilities, government offices...etc. In this manner, they require a compelling apparatus to decipher their words from gesture based communication to English dialect straightforwardly. This device can offices their correspondence with ordinary individuals and urge them to learn both dialects. Additionally, Deaf-Dumb children need to learn sign and English dialects in a fascinating way.

Uneducated Deaf-Dumb individuals can speak with other individuals (ordinary or debilitation) with communication via gestures just, so they confront significant issues in their day by day life. For instance: eateries, transportation, healing facilities, government offices...etc. Along these lines, they require a compelling device to decipher their words from gesture based communication to English dialect straightforwardly. This instrument can offices their correspondence with ordinary individuals and urge them to learn english dialects. Likewise, Deaf-Dumb children needs to learn sign and English dialects in a fascinating way.

This project introduces a coordinated android application with mix uneducated Deaf-Dumb individuals inside society, and help them to speak with ordinary individuals. This work presents an Android Mobile application that empowers correspondence between uneducated Deaf-Dumb and ordinary individuals in our general public. It additionally builds up a guide device for not too sharp in many fields like eateries, healing facilities and transportation. In addition, this application presents a simple interpreter from gesture based communication to English and the other way around.

II. RELATED WORK

The problem appears when impaired of hearing individuals attempt to convey what needs be to other individuals with the help of these communication through signing linguistic uses. This is on account of usual people are normally ignored of these sentence structures. Thus, it has been observed that coherence of an imbecilic people are just uneasy inside his/her family or the impaired of hearing group. At this generation of modernization, there is the importance for a computer based framework for such group. Intriguing advances are being created for discourse acceptance however no certain work item for sign acceptance is really there in the present market.

The Stephen Cox, Michael Lincoln and Judy Tryggvason in 'TESSA, a framework to help correspondence with hard of hearing individuals', 2002 proposed the discourse to sign coversion calculation is being utilized as a part of this paper to perceive the discourse and change over it into a pictures. The S.M. Halawani and Zaitun A.B. proposed 'An Avatar Based Translation System from Arabic Speech to Arabic Sign Language for Deaf People', in 2008 which portray the significance of web to inquiry sight and sound substance, for example, picture or video which is characterized into two classes, for example, content based pursuit and substance based hunt. D. Molla and J.L Vicedo talked about that the 'Confined area QA' ,in 2007 augmentation of content based QA (Question Answer) to inquire about based interactive media QA to deal with the scope of tidbit. H. Cui, M.Y. Kan suggested that the 'Definitional QA', in 2008 Queries is arranged into two classes in particular related inquiry or non-related question. R. C. Wang, W. W. Cohen, E.Nyberg recommends that the paper 'List QA' in 2008 to gather picture and video information we have to produce inquiries through motor.

There are couple of versatile applications for Deaf and idiotic like Deaf and Dumb through 3G applications [4]. These procedures just empower correspondence amongst hard of hearing and unable to speak through gesture based communication utilizing cell phones.

The various application which suggested in [5] makes acceptance of gesture based communication. Portable based Deaf what's more, Dumb Interaction System extend in [6] proposed portable application that empowers the requirements of 'hard of hearing and idiotic building up a voice-actuated versatile which would change over their gesture based communication into messages that might be perused by different clients, this message can likewise change over to a voice.

Almost totally senseless is a term means a man who couldn't either hear or both hear and talk. The quantity of hard of hearing and unable to speak on the planet persistently expanding and they are contemplative shut

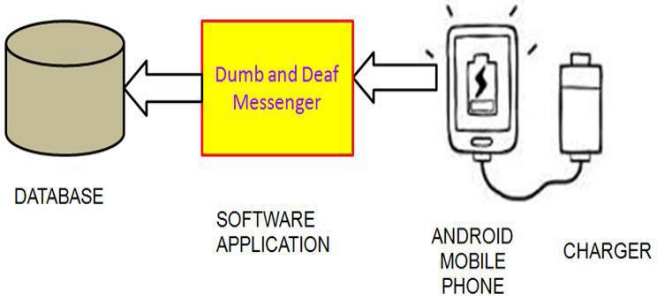
society. The instruction of the hard of hearing is just around exceptionally old [2]. Since sign is the most punctual method for correspondence on the planet when there is no fitting dialect, so the communication via gestures is favoured among the hard of hearing stupid individuals for instruction. Similarly as with different types of manual correspondence, Sign dialect relies on upon finger spelling. The least complex visual type of finger spelling is reproducing the state of letters noticeable all around, or tangibly, following letters on the hand.

Finger spelling can utilize one hand, for example, in American Sign Language, French Sign Language and Irish Sign Language, or can utilize two hands, for example, in British Sign Language [3]. Uneducated Deaf-Dumb individuals can speak with other individuals (typical or handicaps) with gesture based communication just, so they confront difficult issues in their day by day life. For instance: eateries, transportation, healing centers, government offices...etc. Along these lines, they require a powerful apparatus to decipher their words from gesture based communication to Arabic or English dialect straightforwardly. This instrument can offices their correspondence with typical individuals and urge them to learn both Arabic and dialects. Likewise, Deaf-Dumb children needs to learn sign, Arabic and English dialects in an intriguing way. For the above reasons, the inspiration of our application is to offer a support of the general public as a rule and to Deaf-Dumb individuals specifically. This work is an incorporated framework that can without much of a stretch take care of a large portion of their issues in one application.

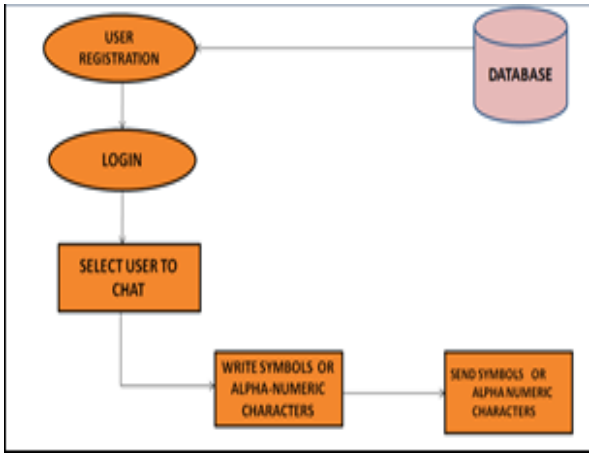
Along these lines, the proposed work means to:

- ✓ Help almost totally senseless to cooperate more with typical individuals
- ✓ Offer an extraordinary instrument for guardians to instruct their not too sharp children
- ✓ Introduce Sign dialect console.
- ✓ Introduce tests and recreations for preparing hard of hearing and unable to speak to recognize English words.

A. System Architecture:



B. Flow Chart



1. User Registration

Here User will register into application using sign Language Keypad.

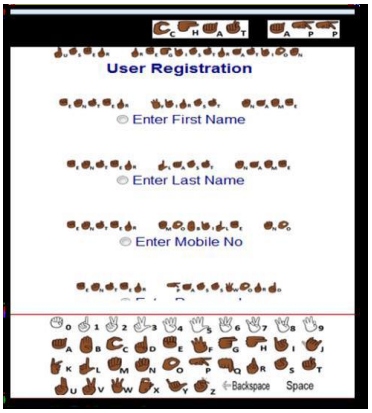


Figure 1. User Registration

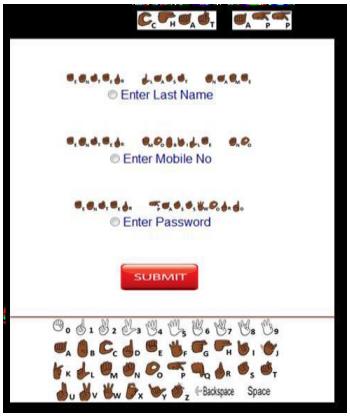


Figure 2. User Registration

2. **Chat Module**

User can chat with the other available user. Here the message communication will be performed using sign lnguage.

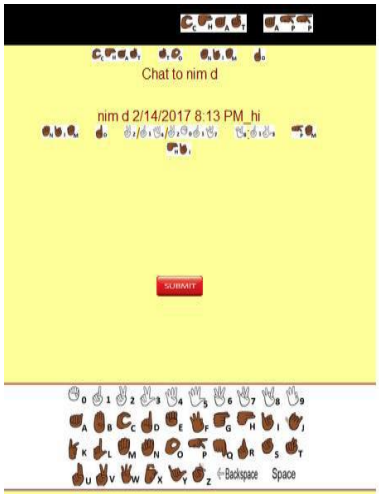


Figure 3. Sender

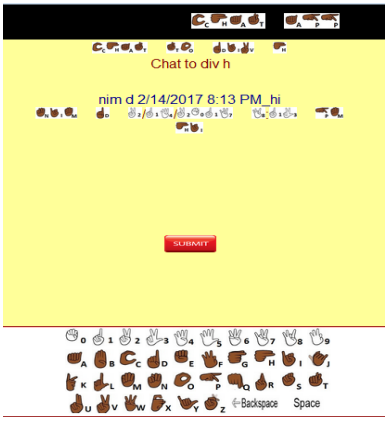
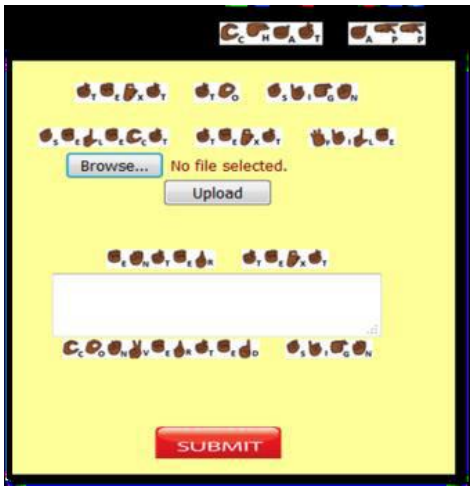


Figure 4. Reciever

3. **File Upload**

Text File is uploaded and then it will be converted into Sign



I. CONCLUSION

We display a useful application for Deaf-Dumb messenger application. This messenger means to help and to sharp by furnishing them with an appealing correspondence and learning device. This work present a Mobile android application that empower correspondence between Deaf-Dumb and typical human in our general public .It additionally build up a guide apparatus for impaired hearing and unable to speak in many fields like eateries, Hospitals and transportation. Besides, this application presents a simple interpreter from communication via sign language to English and the other way around. All the methods explained in this paper are accomplished at constant speed. But in actual practice, machines are operated at various speeds. A rotor is balanced at one speed may get unbalanced at other speed. The design of rotor under various study are taken as uniform cross-section but in actual practice some rotor may have non uniform in cross section. The example of such type of rotor is conical rotor. Effectiveness of two plane balancing method is need to be studied the disadvantages of field balancing are production loss, component life, skilled manpower require. Frequent stoppages of machine for trial runs etc. These drawbacks can be reduced by using various numerical techniques such as finite element method. Hence this study is to be extended further to analyse the effect of rotor speed on its balancing.

II. REFERENCES

[1]. Stephen Cox, Michael Lincoln and JudyTryggvason, "TESSA, a system to aid communication with deaf people". Proceedings on the Automatic speech to text conversion,Automatic translation of English text to sign language and display it as a sequence of signs using computer graphics techniques, 2002.

[2]. S.M. Halawani and Zaitun A.B., "An Avatar Based Translation System from Arabic Speech to Arabic Sign Language for Deaf People",Arabic Speech to Arabic Sign Language for Deaf People, 2012.

[3]. Sunguk Lee, " Creating and Using Databases for Android Applications," Open source SQLite database, 2012.

[4]. Surabhi Bansal and Ruchi Bahety, "Speech Recognition System," Transform the PCM digital audiointo a better acoustic representation and Unit matching system, 2013.

[5]. A. Sujith Kumar and Shahabaz Begum,"Sign Mobiles: An Android App for Specially Able People," Speech to-Text Translation, ASL Dictionaries (TXT2ASL), 2014.

[6]. Dalia Nashat et al, International Journal of Computer Science and Mobile Applications,"AN ANDROID APPLICATION TO AID UNEDUCATED DEAF-DUMB PEOPLE" Vol.2 Issue. 9, September- 2014, pg. 1-8 ISSN: 2321-8363

[7]. http://en.wikipedia.org/wiki/Deaf-mute

[8]. http://www.encyclopedia123.com/D/DeafandDumb.html

[9]. Morford, Jill Patterson, and MacFarlane, James, Winter 2003,"Frequency Characteristics of American Sign Language". Sign Language Studies, Volume 3, Number 2, pp. 213-225

[10]. http://deshgujarat.com/2011/08/20/deaf-and-dumb-people-talk-through-mobile-phone-in-gujarat/.

[11]. S. Zhao, M. Wang, Z. Wei, 2013, "A New Type of Deaf-Mute Sign Language Recognition System Based on the Mobile Communication Platform and Terminal Equipment" Advanced Materials Research (Volumes 734 - 737) 2880-2886.

[12]. http://www.alexu.edu.eg/index.php/en/au-graduation-projects/19539-mobile-based-deaf-and-dumbinteraction-system.

[13]. http://www.estebyans.com/estebyan.php?estnumber=7Bi4eU44MqZVR5a4tGVM

[14]. "Android Overview" Open Handset Alliance. Retrieved 2012-02-15