## **IJARSCT**



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

Volume 2, Issue 9, June 2022

## Voice Assistance for Dumb People Based on Hand Gestures

Mr. Karthik P<sup>1</sup>, Ms. Keerthi Ravikumar Kenchole<sup>2</sup>, Ms. Nehal Modi<sup>3</sup>, Ms. Reddy Rekha B<sup>4</sup>, Mr. Raghay S<sup>5</sup>

Students, Department of Information Science and Engineering<sup>1,2,3,4</sup>
Associate Professor, Department of Information Science and Engineering<sup>5</sup>
Sir M Visvesvaraya Institute of Technology, Bangalore, Karnataka, India

Abstract: It is extremely difficult for people who are deaf to communicate their message to normal people. Communication becomes extremely difficult in case of an emergency, while travelling or among unfamiliar people because most people are not trained in hand sign language. We propose a voice aid system that allows deaf persons to communicate with regular people by using hand motions and gestures. This system uses motion and flex sensors, as well as a speaker unit. The circuitry that runs this system is fuelled by batteries. The system includes various pre-programmed messages such as "need help," "where is the washroom," and other common phrases that enable deaf individuals communicate basic information. The technology analyses a person's hand motions for different variants. It also has a trigger sensor to provide the impression that the person wants to activate the device and say something.

Keywords: Sign Language, Hand Gestures, Flex sensors, communication.

## REFERENCES

- [1]. Dyah Rahma Kartika, Riyanto Sight, Setiawardhana Setiawardhana "Sign language interpreter hand using optical-flow", Aug 2016
- [2]. Engr. Dr.Sidra Abid Syed, Seemeen Chagani, Mehak Hafeez, Sybil Timothy, "Sign Recognition System for Differently Abled People", Oct 2018
- [3]. Aarthi M and P Vijayalakshmi, "Sign language to Speech conversion", Sep 2017
- [4]. Amulya G.S, Anubhav Reddy S, Anurag Dangi, Arvind Ajawan, Raveendra Gudodagi, "Multilingual Voice Assistance for Dumb People" May 2020

DOI: 10.48175/IJARSCT-5323