

## SPEAKING Micro Controller for Deaf and Dumb

Rajesh Panjala<sup>1</sup> Vaseem Ahmed Qureshi<sup>2</sup>  
<sup>1</sup>M.Tech Student ,CMR Engineering College, Telangana, India  
<sup>2</sup>Assoc. Professor ,ECE Dept, CMREC, Telangana ,India

**ABSTRACT :** Micro controller based speaking system for deaf and dumb is designed to give the signs, which are preloaded in the device. It is a micro controller based device, which gives the alert sounds just by pressing the control buttons, which are given some redefined messages like asking for water, washroom etc., here the person can just press the control button which indicates the sign of water (example) then the device sounds the same with some output volume.

**Keywords:** MICROCONTROLLER,

### I. INTRODUCTION

Micro controller is the heart of the device. It stores the data of the needs of the person. So that it can make use of the data stored whenever the person uses the device. This device helps the deaf and dumb people to announce their requirements. By this the person who is near can understand their need and help them. This saves the time to understand each other and ease in communication.

This device is designed to provide with a greater advantage producing voice based announcement for the user i.e. the user gets the voice which pronounces his need as and when it is required. The main aim of the project is to provide a user-friendly interaction with the deaf and dumb people. It is highly sensitive and reliable for the dumb people and it is also very easy to operate.

The basic firmware for the microcontroller is written in Embedded C language and compiled using PIC compiler. The compiler generates the Hex code for the microcontroller and the Hex code is stored /programmed in flash memory of micro controller.

### II. HARDWARE SETUP

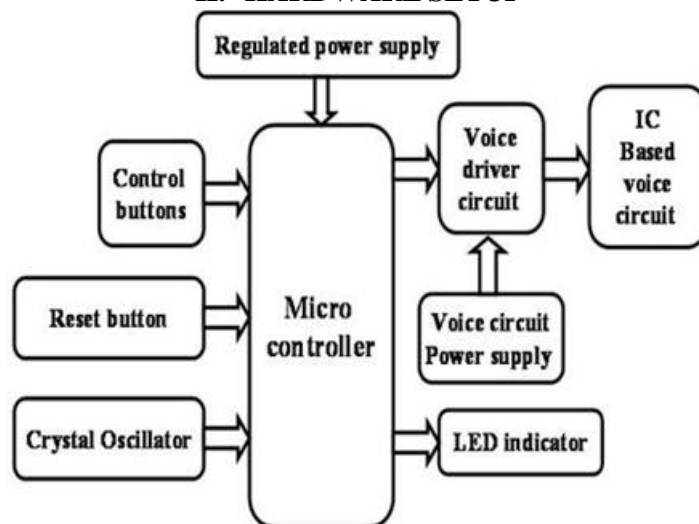


Figure 1: over all implementation

MICROCHIP PIC MICROCONTROLLERS ARE AVAILABLE IN VARIOUS TYPES. WHEN PIC MICROCONTROLLER MCU WAS FIRST AVAILABLE FROM GENERAL INSTRUMENTS IN EARLY 1980'S, THE MICROCONTROLLER CONSISTED OF A SIMPLE PROCESSOR EXECUTING 12-BIT WIDE INSTRUCTIONS WITH BASIC I/O FUNCTIONS. THESE DEVICES ARE

KNOWN AS LOW-END ARCHITECTURES. THEY HAVE LIMITED PROGRAM MEMORY AND ARE MEANT FOR APPLICATIONS REQUIRING SIMPLE INTERFACE FUNCTIONS AND SMALL PROGRAM & DATA MEMORIES.

### III. SOFTWARE FLOW

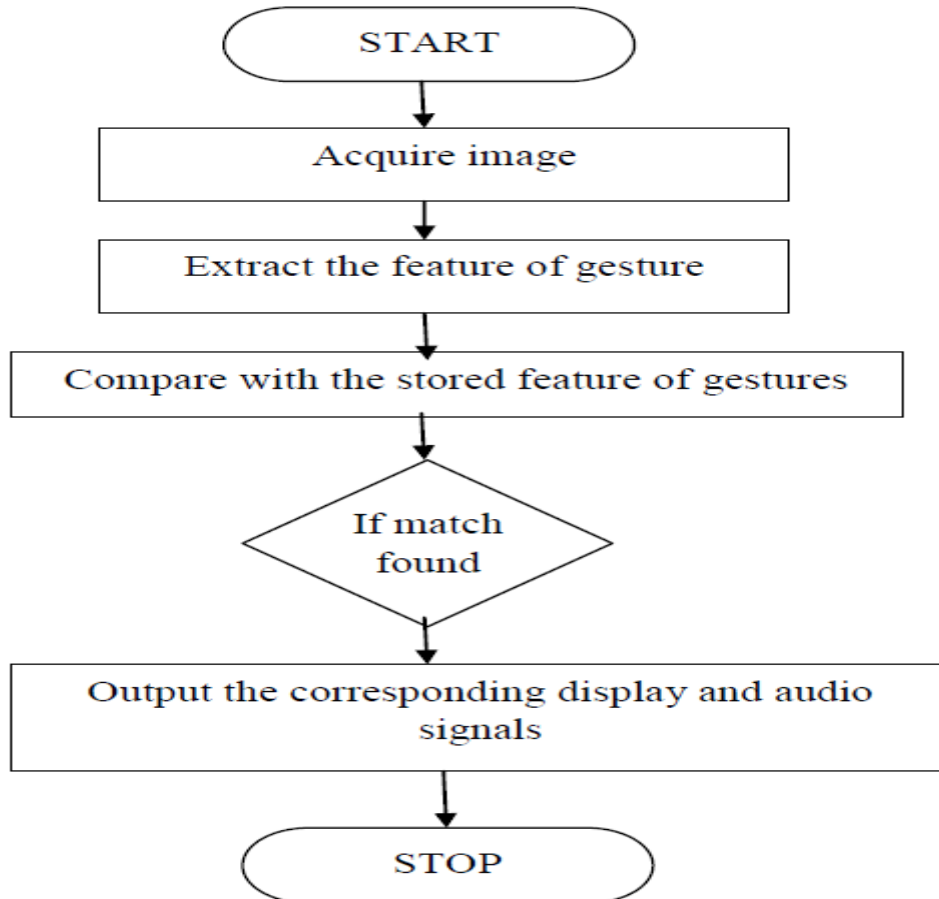


Figure 2 :Flow chart of entire process

### IV. CONCLUSION

Integrating features of all the hardware components used have been developed in it. Presence of every module has been reasoned out and placed carefully, thus contributing to the best working of the unit. Secondly, using highly advanced IC's with the help of growing technology, the project has been successfully implemented

### REFERENCES

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