

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama” Belagavi – 590 010



PROJECT REPORT ON
“INTERACTING DEVICE FOR DEAF AND DUMB
USING ATMEGA328P”

Submitted in partial fulfillment of the requirements for the award of degree

BACHELOR OF ENGINEERING
IN
ELECTRONICS & COMMUNICATION ENGINEERING

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the project work entitled "INTERACTING DEVICE FOR DEAF AND DUMB USING ATMEGA328P" is a bonafide work carried out by

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in partial fulfillment for the award of BACHELOR OF ENGINEERING in ELECTRONICS & COMMUNICATION ENGINEERING of the VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI during the year 2016-2017. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

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ABSTRACT

Communication is the activity of conveying information through the exchange of thoughts, messages, as by speech, visuals, signals, writing, or behaviour. It is the meaningful exchange of information between two or more living creatures. Every normal human being sees, listens and then reacts to the situations by speaking out. But there are some less fortunate ones who are deprived of this valuable gift. Such people, mainly the deaf and the dumb, rely on some sort of sign language for communicating their feelings to others. Sign language is the language used by deaf and mute people and it is a communication skill that uses gestures instead of sound to convey meaning simultaneously combining hand shapes, orientations and movement of the hands, arms or body and facial expressions to express fluidly a speaker's thoughts. In order to facilitate communication between deaf and hearing people a new interacting device is introduced.

The implementation of a system reduces a communication gap between deaf people and hearing people. It is a large scale microcontroller based system being designed to facilitate the communication among the deaf and dumb communities and their communication with the normal people. The device is basically a data glove and microcontroller based system. Data glove can detect almost all the movements of a hand and microcontroller based system converts some specified movements into human recognizable voice. The system converts the sign language into voice which is easily understandable by dumb and normal people. The sign language is translated into some text form, to facilitate the deaf people as well.