

# **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**“JnanaSangama” Belagavi – 590 010**



## **PROJECT REPORT ON**

### **“ADVANCED MEMS CONTROLLED DUMB AND DEAF ASSIST UNIT WITH EMERGENCY ANNOUNCEMENT”**

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

## **BACHELOR OF ENGINEERING IN ELECTRONICS & COMMUNICATION ENGINEERING**

**Submitted By**

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<b>SHWETHA T M</b>	<b>4AL15EC429</b>

**Under the Guidance of  
Mr. Pradeep Kumar K  
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**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING  
ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY**

**MOODBIDRI – 574 225.**

**2017-2018**

# ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

MOODBIDRI - 574 225

(Affiliated to VTU, BELAGAVI)

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

## CERTIFICATE

Certified that the project work entitled "**ADVANCED MEMS CONTROLLED DUMB AND DEAF ASSIST UNIT WITH EMERGENCY ANNOUNCEMENT**" is a bonafide work carried out by

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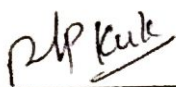
SHWETA HANGARAGI

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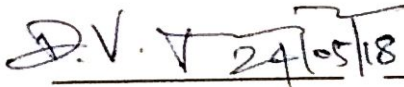
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in partial fulfillment for the award of BACHELOR of ENGINEERING in ELECTRONICS & COMMUNICATION ENGINEERING of the VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI during the year 2017-2018. It is certified that all corrections/suggestions indicated 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.



Signature of the Guide

Mr. Pradeep Kumar K

 24/5/18

Signature of the H.O.D

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### EXTERNAL VIVA

Name of the Examiners

Signature with date

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# ABSTRACT

The physically challenged, deaf and dumb people there is no such device is available to pass their needs and emergency intimations in hospitals, homes and many public places. Sometimes they have to depend only on sign language which may be difficult for common peoples. The method shown here is used to generate a voice from deaf unit to a wireless location and also generates a message to mobile unit in case of needs and emergencies using MEMS sensor, it is possible to generate the required signal to send the signal depends on the movement of the head tilt or hand movements the signal generated from a MEMS unit which is interfaced to transmitter and microcontroller unit.

The deaf and dumb people uses sign language for the communication which is difficult and cannot be understand by common peoples so there must be some unit required which helps the deaf and dumb people to operate easily and can be possible to understand by a common people also. MEMS generate the signal in axis which is x co-ordinate y co-ordinate and z co-ordinate as per the movement of chip the 3 axis accelerometer used here is MMA7260Q. The analog data available from this sensor is processed and send through transmitter the whole unit can be either with control through handicap person or even from a distance operation from attender.