

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAUM-590014



Shrishyla Educational Trust @, Bheemasamudra-577520
G.M.INSTITUTE OF TECHNOLOGY
DAVANGERE-577006, KARNATAKA



A PROJECT REPORT ON

**“ULTRASONIC BASED PATH PLANNING AND
SAFETY SYSTEM FOR BLIND PERSONS”**

Submitted in partial fulfillment of the requirement for the award of degree
(Sponsored by KSCST, IISC, Bangalore)

BACHELOR OF ENGINEERING
IN
ELECTRONICS AND COMMUNICATION ENGINEERING
(2012-2013)

Dr.S.G. HIREMATH
M.Tech, PhD, F.I.E, M.I.S.T.E
Principal

Prof.D.BASAVALINGAPPA
M.Tech, F.I.E
Head Of the Department

UNDER THE GUIDANCE OF
Asst. Prof. RAJASHEKAR. K
M. Tech
Project Guide

PROJECT ASSOCIATES

VEENA MS
ASHWINI B
SUPREETH T RAMPUR
MARUTHI H

(4GM10EC413)
(4GM10EC403)
(4GM06EC104)
(4GM07EC049)

ABSTRACT

In our society we are living with many number of disabled persons like deaf, dumb and blind. But visually impaired people facing many problems in their mobility. That persons cannot walk independently they need help from common people so our project mainly focused to provide electronic aid to such persons that helps to walk independently on the road. The safety system kit Uses an emergency switches and is carried by the blind person. When he is in an emergency condition he just press the switches, then the microcontroller activates and by the use of GSM and GPS the location details of the blind will send to the number which is already programmed in the microcontroller in the form of latitude and longitude. The caretaker may enter into the Google earth software by searching these location details and he may take the action. Similar kind of units with the same working principle are mounted on a blind stick at a particular distance level. When the blind person carries the stick and targets it towards the object, depending on the object distance and its height the particular ultrasonic sensor detects the object and generates logical signals which are connected to a switching unit. The same blind stick fitted with moisture sensor now inserts into the soil and calculate the wet level. After sensing the level of the wet through an op amp 741 which is arranged in comparator mode this logical output lies in two states (high and low) as dry and wet conditions feed to the voice processor unit through switching unit.