

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI-**

**590 018**



**A MICRO PROJECT REPORT ON  
“GSM Path Planning For Blind Person Using Ultrasonic”**

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**CERTIFICATE**

This is to certify that the Micro-Project entitled “GSM Path Planning For Blind Person Using Ultrasonic” has been Successfully Completed by

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The bonafide students of **Department of Basic Sciences, Alva's Institute of Engineering and Technology**, affiliated to **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**, during the academic year 2020–2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report. The report has been approved as it satisfies the academic requirements in respect of Micro-Project work prescribed for Bachelor of Engineering.

**Dr. Prameela Kolake**

**Mini Project Guide**

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## ABSTRACT

This project describes the system architecture for a navigation tool for visually impaired persons. The major parts are: a multi-sensory system (comprising stereo vision, acoustic range finding and movement sensors), a mapper, a warning system and a tactile human-machine interface. The sensory parts are described in more detail, and the first experimental results are presented. The main Objectives are

Approximately 1% of the human population is visually impaired, with roughly 10% of that group being completely blind. Mobility issues are one of the side effects of being sight impaired. Many technologies are currently available for worldwide navigation. Handheld GPS systems for the blind, for example, are now accessible in outdoor scenarios. Local path planning and collision avoidance are not useful techniques for local navigation. Traditional navigational aids, such as a guide dog and a cane, are valued, but they do not fully handle local navigational issues. The use of guiding dogs on a broad scale is not feasible (the training capacity in the Netherlands is about 100 guide dogs yearly; just enough to help about 1000 users). The cane is very confining.