ABSTRACT

PROJECT TITLE: Navigator for visually impaired people

STUDENTS NAME: 1) Dewoo Kudtarkar (Roll no. :- 27)

2) Mandar Naik (Roll no. :- 40)

3) Nikhil Kanitkar (Roll no. :- 23)

4) Pranit Patil (Roll no. :- 48)

GROUP NO: -A8

GUIDE NAME: - Prof. S.S.Patil

ABSTRACT:

Globally, At least 2.2 billion people have a near or distance vision impairment. In at least 1 billion – or nearly half – of these cases, vision impairment could have been prevented or has yet to be addressed. According to WHO, India has 12 million visually impaired due to uncorrected refractive error. Several people who are visually impaired belong to the underprivileged background and live in villages and tier 4 cities where they don't have access to spectacles, but they are unaware this is correctable. Navigator for Visually Impaired People refers to systems that can assist or guide people with vision loss, ranging from partially sighted to the blind, utilizing sound commands.

Many researchers are working to assist visually impaired people in different ways like voice-based assistance, ultrasonic-based assistance, camera-based assistance. In another way creating a fusion of sensing technology and voice-based guidance system, products can be developed which could give better results than individual technology.There is some limitation in the system like obstacle detection which could not see the object, the detection of the object, and the camera-based system can't work properly so the proposed system is a fusion of image processing technology and obstacle detection technology along with the voice-based assistance system.

The proposed system will be suitable to reduce collision risks by enabling an impaired person to walk outdoors easily. The currently used systems for navigating the visually impaired have several downsides similar to cost, reliance, and usability. The major thing of this design is to give a cost-effective to allow people to support eyeless people.The suggested result includes a camera vision system to make an independent operation for out-of-door navigation using Internet of things and create good user experienceto blind peoples. Also, the system has high usability to navigate visually disabled people in strange surroundings like a demesne, roads and so on.