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(57) Abstract :

Visually impaired people face many problems while travelling from one place to other place as they cannot see the obstacles present on their path. Thus in the present proposed work a Navigation Cane for Visually Impaired people is developed. The developed system contains a microcontroller to process the signals.. The interfaced Microcontroller receives signals from all the sensors such as Ultrasonic Sensor, Water Sensor and LDR. The received signals are processed by the microcontroller and provides proper voice output such as the presence of potholes, obstacles, water present and whether tight is present or not. All these information will be given in the form of Voice signals. An application is developed for the blind person lo navigate to the shorter distances in walk mode in the Google maps and all this will happen just by speaking and tapping. The application will help him to confirm the destination and when he confirms it will open Google maps in walk mode and provides directions in which the person has to walk in the form of voice signals.

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Patent Search

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Abstract:

Visually impaired people face many problems while travelling from one place to other place as they cannot see the obstacles present on their path. Thus in the present work a Navigation Cane for Visually Impaired people is developed. The developed system contains a microcontroller to process the signals.. The interfaced Microcontroller receives signals from all the sensors such as Ultrasonic Sensor, Water Sensor and LDR. The received signals are processed by the microcontroller and provides proper voice output such as the presence of potholes, obstacles, water present and whether light is present or not. All these information will be given in the form of Voice signals. An application is developed for the blind person to navigate to the shorter distances in walk mode in the Google maps and all this will happen just by speaking and tapping. This application will help him to confirm the destination and when he confirms it will open Google maps in walk mode and provides directions in which the person has to walk in form of voice signals.

Complete Specification

DESCRIPTION OF THE INVENTION:

PREAMBLE OF THE INVENTION

In real life according to WHO there are about 4% of people who are visually impaired and most of them are above 50 years age. For such people, travelling from one place to other place is very risky and they are not confident enough to travel alone for more distance because of lack of visibility.

In olden days people are used to take their watch dogs to assist them but taking care of these watch dogs by these visually impaired people is another difficult task and involves high maintenance.. Many researchers are putting many efforts to make these people comfortable and independent during their travelling from one place to other with less maintenance.

A foldable stick for the blind is developed but it will not help them to find obstacles but only supports them to walk. There are some other canes developed, in which sensors are interfaced and if there is any obstacle then these sensors intimate the user about the obstacle in the form of vibrations and tactile. To observe this kind of vibrations and tactile, visually impaired person should be more attentive and should not miss these observations at all. Another important drawback of these devices are that these devices will not help the blind person detect the pothole present.

TECHNICAL FIELD

The present invention is related to the development of navigation cane, which is developed for a blind person identifies the potholes, obstacles and water present and conveys the same information to the person in the form of voice signal. An application is also developed for the blind person which helps him to navigate in outdoor using Google Maps.

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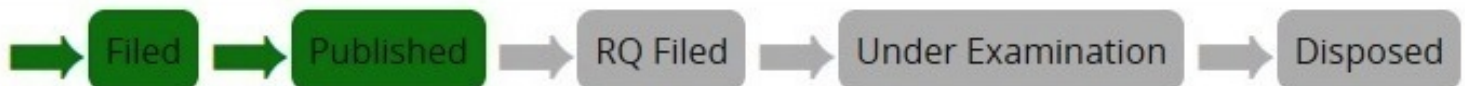
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