Abstract

Vision is one of the most significant parts of human physiology due to the fact that about 83% of the information obtained from the environment is with the help of our eyes. Blind people suffer from many difficulties and one of the most common is their independent navigation. The widely used White cane is ineffective in terms of navigation. In this project a walking stick has been designed to help the blind person to detect obstacles and navigate towards the destination. The proposed walking stick consists of a microcontroller, ultrasonic sensors, a GPS receiver, wet surface detection, a headphone and a vibrating motor. The detection of obstacles is done by an array of ultrasonic sensors. The GPS receiver has been used for navigation purpose. In order
to make this stick useful for a blind as well as a deaf person a vibrating motor is used to generate vibrations near the handle of the stick to detect the presence of obstacles. This whole setup will be mounted on the cane. Every effort is being made to make this cane cheaper as well as user friendly.

References

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Embedded Navigation Assisting Cane for the Blind

Index Terms
Computer Science
Embedded Systems

Keywords
Obstacle Detection  Independent Navigation  Walking Stick  Electronic Travel Aid.