

Path Navigator for Blind People

Abstract:

[1] Blind people can walk in an open area even if there are some obstacles, they can manage with their own will power. But the most unnoticed problem of blind people is that, they can't navigate to particular room or place without a third person help for previous guidance. [2] Most of inventions for blind people only focuses on the obstacle avoidance but not considering hidden problem. [3] Our project tends to resolve this problem in an effective way using a creative idea and some IOT stuffs. we got our inspiration to from an old technology that is line following robot. The concept of our project is to navigate Blind people to their desire destination room in a building without any help of a third person. We preferred cane rather than body waist, because cane can be more effective for them. The cane includes the following sensors, Proximity IR sensor, RFID Reader, Ultra Sonic Sensor, and an Inductive proximity sensor. The Proximity IR sensor is for the line following , RFID Reader is for the Navigation when its come in contact with RFID card which holds Navigation Path, Ultra Sonic Sensor is for the Obstacles detection while following the line and the last Sensor is to identify the correct line based on the Inductivity mechanism that is the blackline contains some amount of Iron power which can be used to differentiate from other normal Black line.

[4] Our project tends to solve the most unknown difficulty of a Blind person faces ,while they are in a Building , in which they can't navigate to a particular room. Our project is Simple to use and cost effective compared to other solutions regarding Blind peoples.

Research Focus: Navigating Blind people to their desired room or location based on IOT and in an cost effective manner.