Background Research for Final Year Project

Paper 1 : DOI: 10.15224/978-1-63248-043-9-29 Effective Fast Response Smart Stick for Blind People

The aim of this research was to identify any weaknesses in the products which are available in the market. The discovered weaknesses was that the products in the market were not able to detect obstacles like upward or downward stairs and puddles. The sensors used in this product are ultrasonic, infrared an water sensor. Ultra sonic for long range detection but infrared for comparatively closer objects. It also contained vibration motors for information transmission. It worked alongside ISD 1932 Playback Warning Message kit which outputs sound through a wired earphone. Another key aspect of this project is that it helps a blind person find the stick if it far from them using a RF transmitter and receiver. The project worked successfully.

Paper 2: SSRG International Journal of Electronics and Communication Engineering (SSRG-IJECE) – Volume 7 Issue – 5 May 2020 ISSN: 2348 – 8549 www.internationaljournalssrg.org Page 19 Smart Blind Stick

This project uses an Arduino Uni together with Bluetooth module. It also uses Ultrasonic Sensor for obstacle detection and Soil Moisture for Moisture detection. The Bluetooth is connected to an Andrioid phone. As this project transmits commands through a wired earphone, the android phone will also direct the person to it’s final destination through use of GPS and navigation on the android phone. There is also a panic button which immediately will send the location and a message to a predefined person if the button is pressed.

Paper 3: Smart\_Stick\_for\_Blind\_People.pdf

Almost the same as the first one but it has a wrist band which has buttons on it for transmission of signal to find where the stick is.

Paper 4: Proceedings of the 2nd International Conference on Inventive Communication and Computational Technologies (ICICCT 2018)

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Similar to Paper 1 and 3 but it also tracks the real time location using SIM808 module.