Vision Aid: Smart Glasses for Blind People

Pavitra Neelannavar, Rachana Gowda, Sakshi Shelar, Srushti Kakade,
Neha Mallav, Prof. Mrs. S. M. Chavan

Diploma in a Electronics & Tele-Communication Engineering

JSPM's Rajarshi Shahu College of Engineering, Polytechnic, Pune, India.

Abstract: *This diagram presents a system designed to assist visually impaired individuals by providing real-time environmental information and navigation assistance through audio feedback. The system uses a Raspberry Pi Pico microcontroller as its central processing unit, coordinating various sensors and modules. The ultrasonic sensor measures distances to obstacles, while the GPS 7M module provides location awareness. The GSM800L module adds communication capabilities. The system is powered by an 11.1V battery with a Battery Management System for safe charging and discharging. Further development could include image recognition, haptic feedback, and a user-friendly interface. The system's effectiveness depends on power optimization, environmental adaptability, user experience, and compatibility with existing assistive technologies*

Keywords: visually impaired individuals