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## Abstract

Visual impairment and blindness in people is a factor that greatly reduces mobility among them. With the recent advances in technology it is possible to extend the support given to people with visual impairment and blindness during their mobility. This paper proposes a new view about biometric instrument for blind peoples to sense and detect obstacles. A device is designed so that the blind people will be able to walk without any white cane. The aim

of this paper is to provide an obstacle identifier to blind persons, so that they can be able to cross through the obstacles easily without their walking stick. They are provided with spectacles to wear on, which are embedded with ultrasonic distance measurement scale equipment and a camera with a headphone. The proposed device is based upon the target finding using ultrasonic sound. The camera in the device helps to identify the person and to re-call from the individual's memory, when the person re-appears before him. The advantage of this paper is that the device proposed need not be carried with pain. The proposed device will be more users friendly. The accuracy level of identifying the target is also improved.

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## Index Terms

Computer Science

Pattern Recognition

### **Keywords**

Ultrasonic Distance Measurement Scale Camera Headphone Principle Component Analysis