**DRISTHI**

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**ABSTRACT**

Navigation is a significant challenge for the visually impaired, impacting their independence. Existing assistive technologies often lack comprehensive solutions. To address this, we introduce a multi-sensory navigation prototype tailored for indoor environments.

Our prototype integrates cutting-edge technologies, including computer vision, auditory feedback, tactile interfaces, and haptic mechanisms. Through continuous scanning and real-time processing, it provides multi-modal feedback comprising audio instructions and tactile/haptic cues, facilitating intuitive guidance and spatial awareness.

The auditory component delivers context-sensitive instructions, guiding users and alerting them to hazards. Wearable tactile interfaces offer spatial information through vibrations or patterns. Haptic feedback provides dynamic directional cues, aiding navigation in complex spaces.

Preliminary trials with visually impaired participants demonstrate improved confidence and efficiency. Feedback highlights the effectiveness of the multi-sensory approach in providing comprehensive spatial awareness, enhancing mobility independence.

In conclusion, our prototype represents a significant advancement in assistive technology, offering a holistic solution for indoor navigation challenges. By integrating multiple sensory modalities, it empowers visually impaired individuals with greater autonomy and confidence in navigating their surroundings.

**Keywords-** *Maximum 5 keywords*