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Beacon Connect Technology

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Abstract: *Navigating public spaces independently poses significant challenges for visually impaired individuals, often requiring assistance from others. This project aims to enhance mobility and accessibility through the development of an Android-based navigation application that provides real-time voice guidance. The system automatically detects when a visually impaired person enters a specific area by utilizing Bluetooth or Wi-Fi connectivity. Once connected, the application delivers step-by-step voice instructions, guiding the user safely to their destination. This solution can be deployed in various environments such as malls, offices, hospitals, transportation hubs, and shopping centers, improving accessibility and independence. By integrating smart connectivity and voice assistance, the proposed system fosters a more inclusive environment, ensuring safer and more efficient navigation for visually impaired individuals.*

Keywords: Visually Impaired Navigation, Real-Time Voice Guidance, Smartphone Accessibility, Bluetooth/Wi-Fi Connectivity, Assistive Technology

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