

ABILITY - A Unified Platform for Disabled Using AI

**Dr. B. Sreepathi¹, Chetan Krishna Gangurde², Bharath Kumar G³,
K MD Soheb Akther⁴, A.E MD Hamza⁵**

Head of Department, Department of Information Science and Engineering¹

Students, Department of Information Science and Engineering²⁻⁵

Rao Bahadur Y. Mahabaleswarappa Engineering College, Ballari, Karnataka, India

Abstract: Ability is a unified web-based accessibility platform designed to empower individuals with disabilities by consolidating fragmented assistive tools into a single, intuitive interface. The project addresses the critical issue of cognitive overload caused by disjointed applications by integrating four core modules: wheelchair-friendly navigation, location-aware SOS emergency alerts, an inclusive job search portal, and the MindCare mental health chatbot. Built on a robust three-tier architecture using HTML, CSS, JavaScript, and Firebase, the system leverages real-time APIs like Google Maps, Adzuna, and EmailJS to provide essential daily assistance and crisis support. Key features include precise GPS-based emergency notifications, disability-friendly employment filtering, and a crisis-aware AI chatbot that identifies distress levels to provide immediate helpline access. By prioritizing an accessibility-first design with high-contrast modes and screen-reader compatibility, Ability fosters greater independence, enhances personal safety, and promotes digital inclusion for the disabled community.

Keywords: Unified Accessibility Platform, Wheelchair Navigation, Location-Aware SOS, Inclusive Employment, and MindCare Chatbot