

The prevalence of road accidents highlights significant gaps in first aid knowledge, where prompt and accurate intervention is crucial due to the time-sensitive nature of injuries. Many individuals are not equipped with the essential skills to administer effective first aid, underlining the necessity for accessible and comprehensive educational resources. Traditional first aid training programs, often being time-consuming and costly, are not readily accessible to the general public, creating barriers to acquiring critical life-saving skills. In response to these challenges, this dissertation presents the development and evaluation of a Self-Learning First Aid Mobile Application for Road Accidents. Utilizing React Native for the mobile interface, Node.js with Express for the backend, and MongoDB for data storage, the application offers a user-friendly platform where normal users can access injury specific first aid guides, provide feedback, and utilize emergency call features. Nurses contribute by uploading and updating first aid guides, while admins manage user roles efficiently. The app aims to empower individuals with the knowledge and skills necessary to provide immediate and effective first aid in road accident scenarios. Future enhancements include integrating interactive multimedia content, AI-driven personalized guidance, expanding the injury database, and conducting large-scale user testing. This innovative solution bridges the gap in first aid knowledge and training, offering an accessible, comprehensive, and interactive platform for first aid education and emergency response.

