

## Mediguide AI-Powered Healthcare Assistant App

**Lokeshwar Narsing Yemulwar**

Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu, India

**Nannapaneni Toshitha chowdary**

Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu, India

**Dr. V. Subapriya**

Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu, India

**Abstract**

MediGuide is a mobile healthcare assistance application designed to streamline the management of an individual's medical information through an integrated and user-centric interface. The system simplifies complex medical reports, automates appointment booking, and enables intelligent medication scheduling. By leveraging Optical Character Recognition (OCR) and natural language processing (NLP) techniques, MediGuide transforms scanned prescriptions and diagnostic documents into concise, easy-to-understand summaries. The application also incorporates a symptom-driven search mechanism that identifies and recommends nearby healthcare providers based on user-reported conditions. Medication reminders are automatically generated by extracting dosage patterns and timing information from scanned prescriptions, minimizing manual entry and improving adherence. Furthermore, the platform includes a voice-enabled assistant capable of responding to basic health-related queries, thereby enhancing accessibility for users with varying levels of digital literacy. MediGuide is implemented using React Native for cross-platform deployment, while Firebase supports authentication, cloud storage, and real-time data synchronization to ensure reliable and efficient system performance.

