

## ABSTRACT

The Hospital Patient Monitoring and Management System (HPMMS) is designed to address key challenges faced by government hospitals, particularly in rural areas, where patients often lack technical knowledge and do not maintain updated medical records. This results in delayed diagnoses, prescriptions, and treatments. The HPMMS aims to enhance the efficiency of healthcare operations by creating a digital platform for managing patient information. Every patient is assigned a unique ID that contains their medical history, including chronic conditions, allergies, past surgeries, and vital signs such as heart rate, blood pressure, and oxygen saturation. The system enables real-time monitoring of patient vitals, allowing healthcare providers to promptly respond to emergencies and track treatment progress. The role-based access feature ensures that doctors, nurses, and lab technicians can easily share information and collaborate on patient care while securing sensitive data. Centralized patient record management helps reduce paperwork, making it easier to retrieve and update medical history. Additionally, integration with laboratory test results enables seamless data sharing between lab technicians and doctors. The system also tracks hospital resources like bed availability and ICU status, ensuring efficient resource management. By digitizing medical records and automating hospital processes, HPMMS aims to improve patient care, reduce administrative burdens, and increase overall healthcare efficiency, especially in rural settings.