

Aura Safe: Women Safety Development and Management System

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Abstract: *Women's safety is a critical concern in today's society due to the increasing number of harassment and crime incidents. This paper presents Aura Safe, an Android-based Women Safety Development and Management System designed to provide immediate assistance, real-time monitoring, and preventive safety features. The system incorporates advanced functionalities including real-time GPS location tracking, shake-based SOS alert mechanism, fake call simulation, and crime rate visualization. The SOS alert system sends emergency messages with precise GPS coordinates to pre-registered contacts upon device shake detection, enabling rapid response without manual interaction. The fake call feature helps users escape dangerous scenarios through a simulated incoming call. The crime rate visualization module provides area-wise crime statistics for informed safety decisions. The system is developed using Android Studio with Java, Google Maps API, SMS Manager API, and accelerometer sensor integration. Results demonstrate reliable operation across Android 7.0–13 devices. The proposed system addresses existing limitations in standalone safety applications by unifying multiple protective features into a single platform.*

Keywords: Women Safety, Android Application, GPS Tracking, SOS Alert, Shake Detection, Fake Call, Crime Visualization, Mobile Security

