



# AN OVERVIEW ON RAAS: RAPE ATTACK ALERT SYSTEM

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**Abstract:** Women's safety is a growing concern due to the rising incidence of crimes like sexual assault, domestic violence, and harassment. This research proposes a "Rape Attack Alert System," an Android application designed to enhance women's safety using GPS-based location tracking and other security features. The app enables users to send emergency alerts to predefined contacts, including their location, and incorporates additional features such as voice recording for evidence collection and an alarm system to innovative solutions to enhance women's safety in critical situations.

## I. INTRODUCTION

### Overview

The safety of women is a pressing social issue. Despite measures taken by governments and institutions, the freedom and confidence of women are often compromised due to the fear of violence and harassment. Modern mobile technology provides a platform to mitigate this issue through user-friendly applications designed to enhance personal safety.

### Purpose

This project aims to develop an Android-based application that addresses the challenges faced by women in unsafe situations. The app includes features such as GPS tracking, SOS alerts, and emergency contact notifications, ensuring timely assistance.

### Motivation

The increasing rate of crimes against women, especially during nighttime travel or in isolated areas, underscores the need for technological interventions. Mobile applications offer an efficient and accessible solution to enhance women's safety, empowering them to respond effectively during emergencies.

## II. METHODOLOGY

### System Design

The app uses a combination of GPS tracking, voice recording, and automated SOS alerts to notify emergency contacts and law enforcement in critical situations. The primary features include:

- **Emergency Alert System:** Triggered by shaking the device or pressing a designated button, sending location and distress messages to predefined contacts.
- **Voice Recording:** Captures audio evidence automatically during an alert.
- **Siren Activation:** Emits a loud sound to attract attention and deter attackers.

### Technical Specifications

- **Frontend:** HTML5, CSS3, Bootstrap
- **Backend:** Flutter and Angular JavaScript
- **Development Tools:** Android Studio, XAMPP
- **Hardware Requirements:** Intel 3 processor or above, 4GB RAM

**Implementation**

The app allows users to register contacts during setup. In an emergency, the app generates alerts and provides real-time location updates to the registered contacts and law enforcement.

**III. MODELING & ANALYSIS**

The application was evaluated against existing women's safety apps to identify improvements in functionality and user experience. Comparative analysis highlighted the advantages of features such as offline messaging and real-time location sharing. Additionally, data flow diagrams were developed to outline the app's operational framework, from user input to emergency response.

Results indicated a significant enhancement in response time and usability, ensuring the app meets the demands of real-world scenarios effectively.

**IV. CONCLUSION**

The Rape Attack Alert System demonstrates the potential of leveraging technology for women's safety. By integrating GPS tracking, automated alerts, and evidence collection, the app empowers users to respond effectively in emergencies. Future developments may include AI-based risk assessment and integration with wearable devices, further expanding its utility and accessibility.

**REFERENCES**

- [1]. Ravi Sekhar Yarrabothula, Bramarambika Thota, "Abhaya: An Android App for the Safety of Women," IEEE, December 2019.
- [2]. Alisha Maruti Gawade et al., "S-Zone: A System for Women Safety & Security System," Journal of Electronics and Communication Engineering, 2019.
- [3]. Sagar Khan et al., "Shield: Personal Safety Application," IRJET, May 2020.
- [4]. Piyush Bhanushali et al., "Women Safety Android App," IRJET, April 2018.
- [5]. N. Ramesh Kannan et al., "Women Safety Mobile App," IJCI, May 2017.