



**Swami Keshvanand Institute of Technology, Management  
& Gramothan, Ramnagar, Jagatpura, Jaipur-302017,  
INDIA** Approved by AICTE, Ministry of HRD, Government of India  
Recognized by UGC under Section 2(f) of the UGC Act, 1956

Tel.: +91-0141- 3500300 Fax: +91-0141-2759555

## STUDENT KIT

### Objective

The 'Emergency Help' application aims to provide a robust and efficient solution for handling emergencies by automating the process of information collection and notification. The application records a 15-second video, captures audio, gathers GPS coordinates, and sends this data to a cloud server. It also notifies emergency contacts and optionally law enforcement agencies in real-time.

### Requirements Specification (RS)

This section outlines the functional and non-functional requirements for the application.

No.	Requirement	Essential/Desirable	Description
1	GPS Activation	Essential	Automatically enables GPS to capture the user's location.
2	Video Recording	Essential	Captures a 15-second video through the camera.
3	Audio Recording	Essential	Records audio to provide context for the emergency.
4	Cloud Upload	Essential	Sends captured data to a cloud server for secure storage.
5	Contact Notification	Essential	Notifies emergency contacts with captured data.
6	Police Alert	Desirable	Automatically alerts law enforcement with emergency details.



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### Database Fields Specification

Below is the database design for storing user and emergency data.

Field Name	Type	Description
User_ID	Integer	Unique identifier for each user.
Name	String	Name of the user.
Emergency_Contact	String	Phone number of the emergency contact.
Location	Coordinates	GPS coordinates captured during the emergency.
Video_URL	String	Link to the video stored on the cloud.
Audio_URL	String	Link to the audio stored on the cloud.
Timestamp	Datetime	Time of the emergency event.

### High-Level Design (HLD)

The system comprises the following components:

- User Interface: Allows users to trigger the emergency help feature.
- GPS and Sensor Module: Captures location and environmental data.
- Media Capture Module: Handles video and audio recording.
- Cloud Integration: Securely uploads data to cloud servers.
- Notification Service: Alerts designated emergency contacts.



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### Test Plan (TP)

The following test cases validate the application functionality:

No.	Test Case Title	Description	Expected Result	Result
1	GPS Activation	Verify GPS is enabled automatically.	GPS is enabled.	Pass
2	Video Recording	Check video recording functionality.	15-second video is recorded.	Pass
3	Audio Recording	Check audio recording functionality.	Audio is recorded.	Pass
4	Data Upload	Verify data upload to cloud.	Data is successfully uploaded.	Pass
5	Contact Notification	Ensure emergency contacts are notified.	Notification sent successfully.	Pass