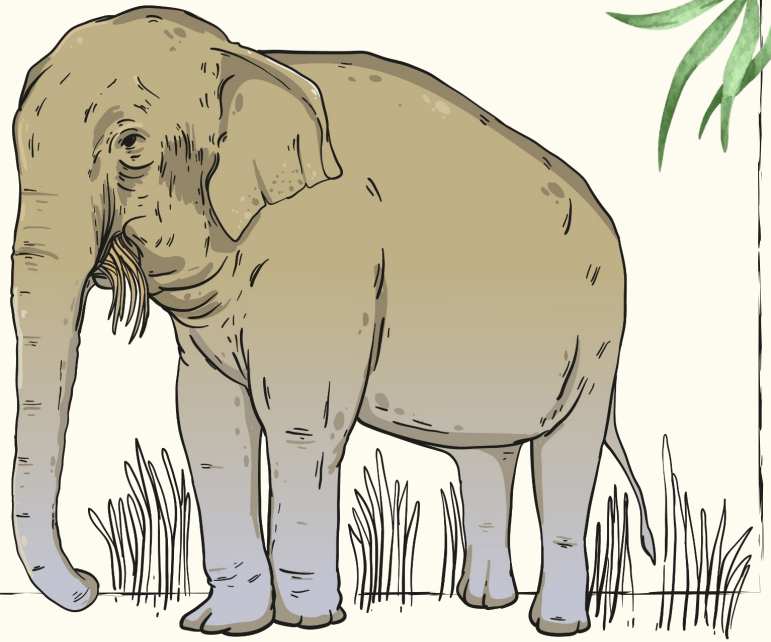
RUMBLE

A Smart Elephant Detection
for home and crop surveillance and security



Contents of this template

You can delete this slide when you're done editing the presentation

Fonts	To view this template correctly in PowerPoint, download and install the fonts we used
Used and alternative resources	An assortment of graphic resources that are suitable for use in this presentation
Thanks slide	You must keep it so that proper credits for our design are given
Colors	All the colors used in this presentation
Icons and infographic resources	These can be used in the template, and their size and color can be edited
Editable presentation theme	You can edit the master slides easily. For more info, click **here**

For more info:
SLIDESGO | **BLOG** | **FAQs**

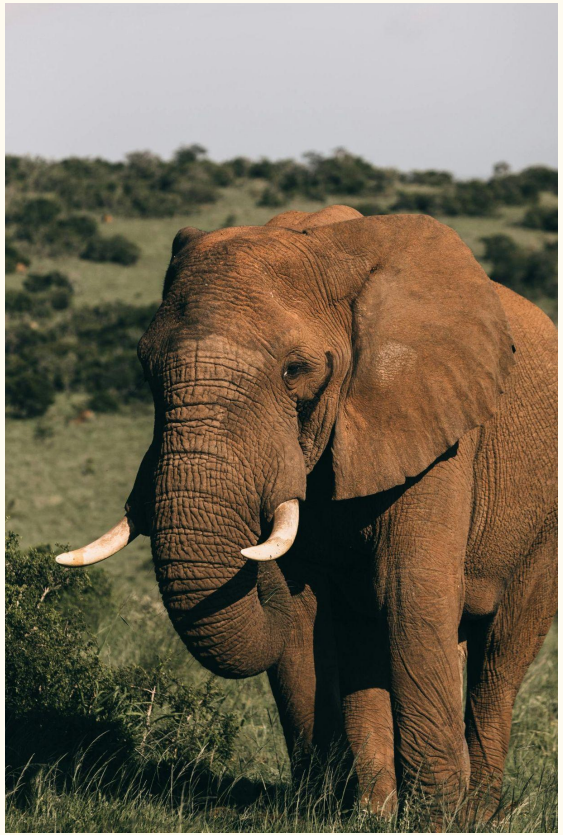
You can visit our sister projects:
FREEPIK | **FLATICON** | **STORYSET** | **WEPIK** | **VIDEVO**

Table of contents

01. Problem Background
02. Problem Statement
03. Project Aim
04. Demo Video
05. System Architecture Design
06. Challenges Faced
07. Changes from initial report
08. Future Enhancements and scalability

01. Problem Background

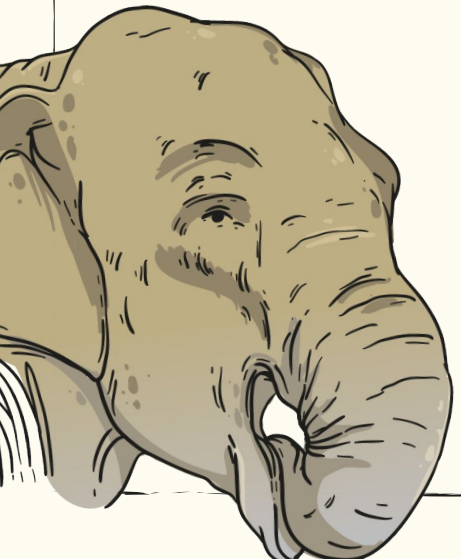
Battles between people and elephants have grown to be a serious issue in Sri Lanka, especially in rural areas where these incidents can result in fatal accidents, losses in crops, and destruction of property. These incidents show how urgently efficient mitigation techniques are needed to protect human lives and animal welfare.



02. Problem Statement

1. Battles between humans and elephants put lives and security at risk in rural areas of Sri Lanka.
2. Most of the elephant ecosystems are near human populations, which puts people's safety and assets in danger.
3. Innovative approaches must be found immediately to encourage the existence of both humans and elephants.

03. Project Aim



RUMBLE, an app that uses Raspberry Pi hardware to recognize elephants near dangerous divisions and immediately alert people when an elephant is identified.

04 Demo Video

05. System Architecture Design.

Logic Tier - Deep Learning Model for Elephant Detection

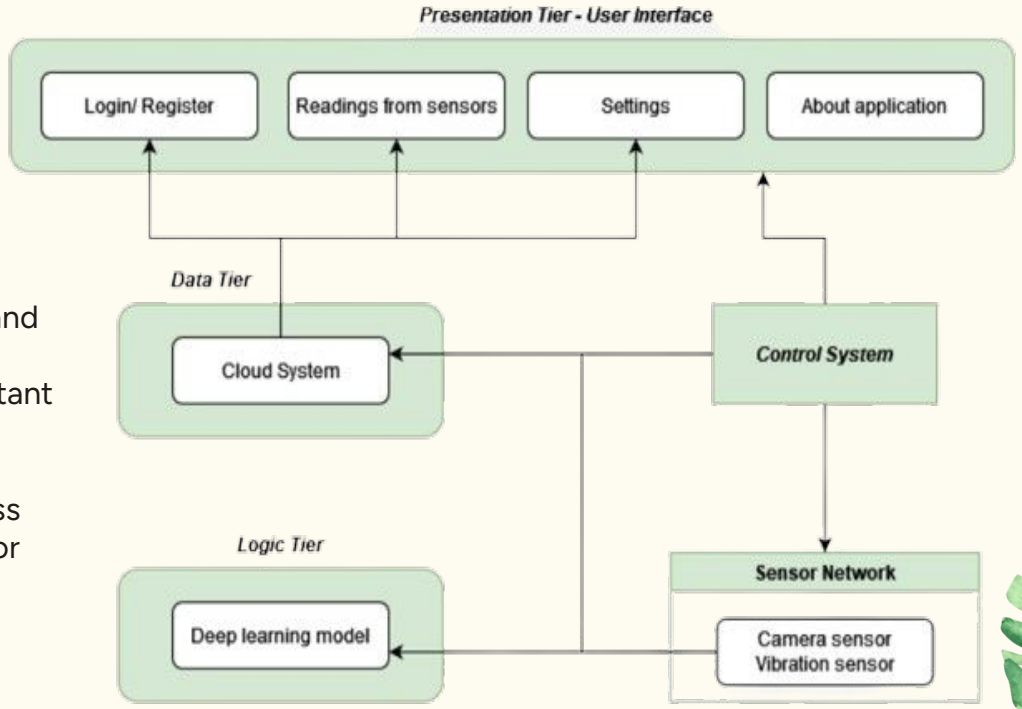
- Utilizes TensorFlow Lite for efficient processing
- Analyzes sensor data to identify elephant presence

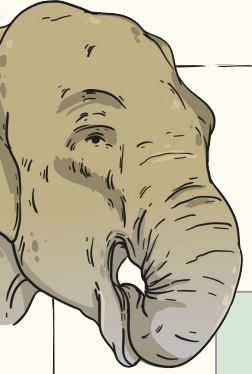
Data Tier - Firebase Cloud Server for Storing Data

- Securely stores sensor readings and application data
- Real-time synchronization for instant access and updates

Presentation Tier - User Interface (UI)

- Login/Register: Application access
- Sensor Readings: Real-time sensor data display
- Settings: User preferences and account customization
- About Application: Overview of Rumble application





06. Challenges & Progress

Challenges Faced	Accomplishments
Real-time alerts	Elephant detection
Power consumption optimization	Image capturing
Real-time data display	User login
System scalability	Cloud data storage
User-friendly dashboard	

07. Changes from Initial Report

Functionalities		System Architecture & Design
Achieved	*Partially Done/Not Done*	
• Elephant detection • Image capturing • Deep learning processing • User login • Cloud data storage	• Real-time alerts • Low power optimization • Real-time data display • Scalability • User-friendly dashboard	• Logic and Data Tiers implemented • UI partially developed; core pages in place

08. Future Enhancements and scalability

Future Enhancements

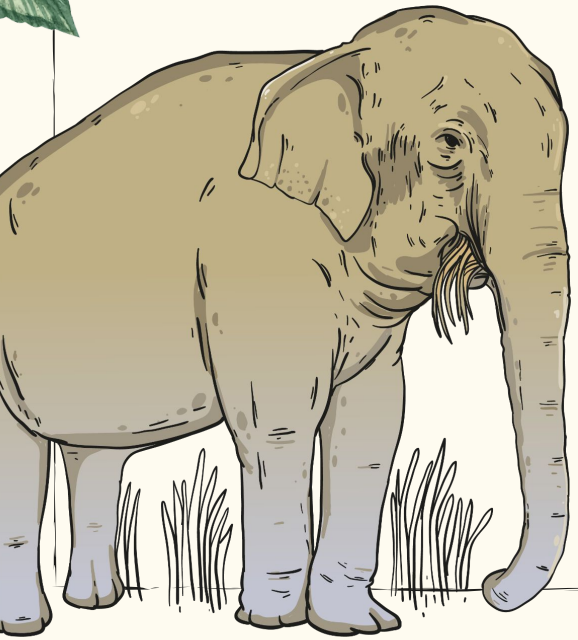
- Real-time alerts
- Power optimization
- Real-time data display and Dashboard

Scalability

- Future plan to enable system for multiple locations

Thanks!

Do you have any questions?



CREDITS: This presentation template was created by **Slidesgo**, and includes icons by **Flaticon**, and infographics & images by **Freepik**