

Project Name: Smart Guard: Robust Real-Time Alert System

Students: Ayesha Fazal-05, Arifa Shabbir-17

Supervisor: Ms. Samia



Introduction

The Smart Guard application enhances CCTV surveillance by integrating AI, IoT, and GPS to detect suspicious activities, recognize objects and individuals, and send real-time alerts to authorities.

Problem Statement

Current CCTV systems rely on manual monitoring and basic motion detection, leading to delays in response. Smart Guard aims to overcome these limitations with automated real-time surveillance and reporting.

Objectives

- **Automated Detection:** Identify suspicious activities using AI.
- **Instant Alerts:** Notify authorities and security personnel immediately.
- **Data Logging & Analysis:** Store and analyze data.
- **Scalability:** Adaptable to different environments and future advancements.

Methodology

The system will integrate:

- AI-based face detection.
- Alerts through app notification and mail to police station.
- Storage for data security and retrieval.

Tools and Technologies

- **Software:** Vs code, Andriod studio, Docker desktop
- **Framework:** Django
- **Programming Languages:** Python (AI Face Recognition Library), Java (Android development).
- **Storage:** Sqlite

Core Tasks

- **Real-Time Surveillance:** Camera video streaming.
- **Face Detection:** : Identify individuals.
- **Alert & Notification System:** Immediate reporting via email, or app notification.
- **Local Storage:** Secure and efficient data management.