Project Title: Gait Analysis System for Suicidal Behavior Detection

Abstract:
This project aims to develop a real-time surveillance system that combines computer vision and artificial intelligence to monitor individuals and detect prolonged presence, aiding in suicide prevention. The system processes live video feeds to identify people, box their faces, and timestamp their arrival, while continuously tracking their movement. If an individual stays beyond a defined threshold, the system captures their face, logs the data, and sends an alert to designated personnel. By integrating deep learning models and tracking algorithms, it provides efficient and reliable surveillance for sensitive environments such as public spaces, hospitals, and schools.

Keywords: Gait Analysis, Suicide Prevention, Real-Time Monitoring, Computer Vision, Deep Learning, Tracking System, Alert Notification

Problem Statement:

Existing surveillance systems cannot automatically identify and alert authorities about individuals lingering in high-risk areas, causing delayed interventions. This project aims to create a real-time monitoring system to address suicidal tendencies proactively.

Objectives:

1. Detect and count individuals in live video feeds using advanced object detection techniques.
2. Identify and timestamp individuals upon arrival, and track their movements across frames.
3. Generate alerts with captured face images when an individual's presence exceeds a predefined threshold.

Outcome:

Development of a real-time monitoring system that identifies movement patterns, triggers alerts for prolonged presence, and notifies concerned personnel for timely intervention.

Language / Software Tools used:

Programming Language: Python
Tools & Libraries: OpenCV, YOLO (for object detection), TensorFlow/PyTorch, Dlib, Twilio API (for notifications), DeepSORT (for tracking).
Database: SQLite/Firebase

Group Members Names:

SL.NO.	USN	NAME
1.	1DB21IS059	Keerthi V
2.	1DB21IS061	Khushi K Vernekar

Project Guide   Project Coordinator   HOD
Name of the guide