STUDENT PROJECTS

MAJOR PROJECT PHASE-1 PLAN

Department: CD		Semester: 6	Academic Year: 2024–25
I	**Proposed Title of the Project:**	**CCTV footage person attribute extraction system**	
	Area of Specialization/Stream	**Computer vision, Deep learning**	
II	**Name of guide:**	**Prof. Nagaraja N S**	
III	**Name of Team Members** (Not more than four students in a batch):		

Sl. No.	Name	USN	Contact No.
1	**Naik Jitesh Mahabaleshwar**	**4VP22CD032**	8088724901
2	**Rahul Umesh Durgekar**	**4VP22CD039**	7892554261
3	**Sachin Rathod**	**4VP22CD044**	9353555475
4	**Shreyas**	**4VP22CD052**	9645517997

IV Introduction

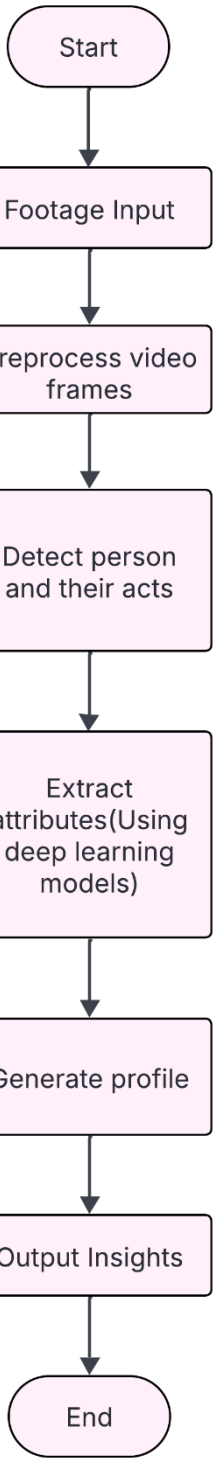
The CCTV footage person attribute extraction system used to automatically analyze surveillance footage and extract detailed attributes of individuals such as height, weight, age, clothing color, and body tone. By utilizing advanced object detection and attribute recognition models, the system processes CCTV video streams to identify and describe people in real-time. This project focuses on providing actionable insights by generating comprehensive profiles of individuals captured in the footage, which can be used for more quick and effective security analysis and forensic investigations. This system delivers precise attribute extraction to assist security personnel in making informed decisions. This innovative approach enhances surveillance capabilities, making it a valuable tool for modern security and monitoring applications.

Objectives of the project

- To precisely identify height, weight, age, clothing colour, and body tone from CCTV footage.
- To analyze live or recorded video feeds instantly for timely insights.
- To assist in monitoring and investigations with detailed individual descriptions.
- To present the data clearly for easy interpretation and decision-making.

V Methodology

The system follows a structured pipeline to convert raw CCTV footage into actionable insights. It begins taking CCTV footage, which is then pre processed to enhance quality through tasks like noise reduction, resizing, and normalization. Object detection models such as YOLO or Faster R-CNN identify individuals in the frames. Once detected, deep learning model extracts key attributes like height, weight, age, clothing colour, and body tone. The extracted attributes are organized into comprehensive profiles, providing detailed descriptions of each individual. The system presents the data in a user friendly format such as a dashboard or report, enabling security teams to interpret and act on the insights quickly. This seamless flow ensures efficient monitoring and decision-making, transforming raw footage into meaningful information.



VI **Expected Outcome of the project**

- Generate precise individual profiles (weight, height, age, clothing colour, body tone) from CCTV footage.
- Provide instant insights from live or recorded video feeds.
- Enhance security efficiency with automated attribute extraction and user-friendly outputs.

STUDENT PROJECTS

VII	**Application of the project**	
	• Security and surveillance. • Forensic investigation. • Crowd management. • Retail analytics.	
VIII	**Does the project proposed is relevant to any of the Industry or Institution in and around your area:** No	
IX	**Budget**	
	Materials Cost:	-
	Labour Charges:	-
	Any other cost:	7000
	Total:	**7000**
	Source for Funds:	Self
X	**Schedule for Major Activities**	
	Date of commencement of project:	18-02-2025
	Project Plan (Synopsis) submission to the Department	25-02-2025
	Review of the Project Plan by Guide/Project Coordinators/HoD	25-02-2025 to 28-02-2025
	Presentation 1: Presentation of Project Plan (Synopsis)	1st Week of March 2025
	Submission of Progress report: Chapter 1: Introduction & Chapter 2: Literature review-Problem Statement, Requirements Specification and Analysis(soft copy)	18-04-2025
	Project Phase-I Presentation 2 : Introduction & Literature review-Problem Statement, Requirements Specification and Analysis	Between 4th Week of April 2025 to 1st Week of May 2025
	Submission of soft copy of Project Report	Before 10-05-2025
	Date of completion of the Project Phase-I report on Introduction & Literature review-Problem Statement/ Requirements Specification and Analysis.	20-05-2025
XI	**Team members**	
	Student(s)	Signature with date
	1. **Naik Jitesh Mahabaleshwar**	
	2. **Rahul Umesh Durgekar**	
	3. **Sachin Rathod**	
	4. **Shreyas**	
XII	**Guidance**	
	Guide allotted:	Signature with date
	1. Guide: Prof. Nagaraja N S	