

Project Design Phase-I Solution Architecture

Date	15 November 2023
Team ID	
Project Name	ConstructGuard_YOLO-Based Saftey Gear Survilance
Maximum Marks	4 Marks

Solution Architecture:

The key components of the architecture include data collection consist of reviewing the dataset and preprocessing, model selection leveraging convolutional neural networks (CNNs) and transfer learning from pre-trained models, custom model architecture design, training with appropriate loss functions and metrics, hyperparameter tuning, deployment to a production environment, integration with a user interface, and ongoing monitoring and maintenance. The goal is to leverage deep learning and computer vision techniques to accurately classify images into different disease categories. A robust, well-designed architecture allows for adaptability over time as new data becomes available.

Our solution leverages Convolutional Neural Networks (CNNs) to address the garbage classification problem effectively.

- Data Gathering
- Image Preprocessing
- Model Building
- classification/Prediction
- Real Time Analysis

Example - Solution Architecture Diagram:

