

# Automatic Invigilation System - Analytical Report

## 1. Overview

**Date of Examination:** 2024-09-19  
**Number of Students:** 30  
**Duration of Exam:** 10:00 AM - 12:00 PM  
**Objective:** Detect potential cheating behaviors using AI invigilation

## 2. Key Metrics

**Total Suspicious Activities Detected:** 15  
**Number of Alerts Raised:** 10  
**False Positives:** 2  
**True Positives:** 8  
**False Negatives:** 1

## 3. Detection Insights

**Movement-based Anomalies:** 60%  
**Object Detection Anomalies:** 30%  
**Optical Flow Anomalies:** 10%

## 4. Cheating Probability by Student

Student ID	Anomaly Detected	Cheating Probability (%)	Action Taken	Comment
101	Head Turning	85%	Alerted	Suspicious
102	No Anomaly Detected	5%	No Action	Normal
103	Object Detection	75%	Alerted	Unauthorized Device

## 5. Model Performance

**SVM Detection Accuracy:** 92%  
**YOLO Object Detection Accuracy:** 89%  
**LSTM/Anomaly Detection Accuracy:** 91%

## 6. Recommendations and Next Steps

**Improvement Areas:** Reduce false positives by fine-tuning anomaly detection models.  
**System Optimization:** Incorporate more training data for specific behaviors.