

ABSTRACT

FACIAL IDENTIFICATION FOR SCHOOL ATTENDANCE SYSTEM USING YOLO V9 ALGORITHM

By
Gilang Sualeman
21102091

Manual attendance systems in schools remain vulnerable to fraud and are often inefficient. This study aims to develop a face recognition model using the YOLOv9 algorithm as a solution for automated attendance systems. The process includes collecting facial datasets from five students, data preprocessing, model training, and performance evaluation using two variants: YOLOv9e and YOLOv9c. The evaluation results show that YOLOv9e achieved a precision of 0.99, recall of 1.00, and mAP 0.5:0.95 of 0.89, while YOLOv9c achieved a precision of 0.98, recall of 0.99, and mAP of 0.88. Both models demonstrated high accuracy and are suitable for real-time face-based attendance. The model is expected to improve the efficiency and security of attendance systems in schools.

Keywords: *Face Identification, School Attendance, YOLO V9, Face Recognition, Deep Learning*