

Abstract

This research presents an in-depth analysis of face mask detection and classification using YOLOv8 and will be tested on the Facemask dataset which consists of images divided into training, testing, and validation stages and through two approaches, namely augmentation and non augmentation. This study analyzes the performance assessment of YOLOv8 and highlights its ability to recognize individuals wearing face masks and those not wearing face masks. The main objective of this study is to analyze the performance of YOLOv8 in detecting and classifying the use of face masks. The evaluation results are based on three main metrics namely Mean Average Precision (mAP), Precision, and Recall. The results on the non augmentation approach model show Mean Average Precision (mAP) 93.1%, Precision 79.7%, and Recall 95.9%. The results on the augmentation approach show Mean Average Precision (mAP) 91.9%, Precision 76.6%, and Recall 94.7%.

Keywords : Yolo, FaceMask, Face Classification