

## ABSTRACT

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*Face detection is one of object detection to recognize that the object in front of the camera is a face or not a face. In this study, the system was built using a webcam which has an auto focus feature for real-time video capture and the camera position is placed diagonally inside the room. This system successfully detects objects that are faces up to 4 meters under both bright and moderate lighting conditions using MTCNN library. If a face is detected using accessories and not facing the camera, the system cannot recognize the face. Furthermore, when a face is detected beyond 4 meters and there are more than 3 people in a room, the system's accuracy in detecting faces decreases.*

*Keywords: Face Detection, MTCNN, People Counting, Camera*