ABSTRACT

The use of surveillance cameras or monitors start mostly used by the public. However, a conventional CCTV installation which is still less effective. Because they require constant supervision. By using the IP camera as a surveillance camera, a homeowner can see in real time the condition of the house. So that it can be accessed anywhere and at any time by simply using a smartphone or other device.

Security systems using IP camera with face detection and facial recognition method. Face detection process that performs the search input face of the IP Camera. Once detected, the face image will undergo the process of face recognition. After that if it does not match the face in the database, then it will be captured and send to smartphones via email. After getting the notification, homeowners can access the IP Camera in real time via a smartphone or other device.

From the test results it can be concluded that the system runs fine if bright light, distance below the face of the IP Camera is less than 3 feet, face angle below 15 °, and the database must complete a variety of facial expressions and attributes. The processing time face detection and face recognition from 100 ms to 200 ms and an email notification delivery time ranges from 6000 ms to 8000 ms.

Keywords : CCTV, *IP Camera*, *Face Detection*, *Face Recognition*, *Email*, *smartphone*