

## **ABSTRACT**

In household activities, a parent's job is not only taking care of their babies, but also cooking, and tidying up the house. They also have other jobs, such as doing their job to fill their household needs. However, the babies must also be closely monitored. Because of this situation, the rate of injury or death to the baby is usually caused by a lack of supervision of the babies. The traditional baby monitoring system uses based of surveillance cameras which have no ability to recognize a baby's existence. To maintain about proceed with the process using a machine learning algorithm called MobileNetV2. The obtained data will go through two detection stages and three hidden to make a label of the baby in a live situation. The inability of the detection sequence happens because of obstacles, or less illumination such as a blanket, pillow, or even low light situations. The proposed system works properly with an average 90% accuracy in all detection systems, specifically, the system uses a combination of an application and an IOT system for notifying the parents about their baby. The experimental result shows the system proposed in this paper is portable because its small size and effective. Real-time capabilities and measurement accuracy also increase the level of the safety requirement for the baby.

Keywords : Baby Monitoring, MobileNetV2, Webcam, Object Detection