**INTRODUCTION**

Covid-19 is caused by the 2019 novel coronavirus (2019-nCoV), a new virus belonging to the same family of viruses causing severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS). The number of infected and deceased patients are rapidly increasing. According to the World Health Organization (WHO) [1], in December 2020, the number of total cases worldwide was more than 82.7 million people, and the total number of deaths was approximately 1.8 million people. The virus is transmitted via direct contact with respiratory droplets of an infected person. To limit the spreading of COVID-19 pandemic, face mask wearing is highly encouraged, and in some countries, required. Research studies have shown that face mask wearing can decrease community transmission of COVID-19, peak hospitalization and even deaths. Steffen E. Eikenberry et. al [2] suggested that wearing a mask in public can potentially reduce burden of the pandemic. Cornelia Betscha et. al [3] conducted an experiment to study social and behavioral consequences of mask policies during the COVID-19 pandemic. The study concluded that mask wearing was positively correlated with other protective behaviors, and countries or communities preferred people to wear masks. During the surging COVID-19 pandemic, governments of many countries require face mask wearing in public area, such as public transport. Computer vision is often utilized in security system to detect body temperature and mask wearing before entering a building. Face mask detection system through artificial intelligence has been shown to be an effective solution; Sammy V. Militante and Nanette V. Dionisio [4,5] proposed a face mask wearing detection and physical distancing measurement system using deep learning, and Sharma Vinay [6] proposed a convolutional neural network (CNN) to detect if an individual is wearing a face mask. In this paper, the YoloV5 was applied to perform the CNN to recognize whether a person wears a face mask properly, wears a face mask incorrectly, or does not wear a face mask. The experimental results for face mask detection obtained from the deep learning models with different epochs, including 20, 50, 100, 300 and 500, were examined and discussed in Section IV, and concluded in Section V.