# ABSTRAK

Indonesia masih berjuang melawan Virus COVID-19. Hampir semua dana Pemerintahan difokuskan untuk menangani dan meminimalisir adanya kasus tambahan akibat COVID-19. Beberapa bulan kemudian, kebijakan PSBB tersebut membuahkan hasil. Angka kasus konfirmasi akibat Virus COVID-19 mulai menurun, sehingga Pemerintah membuat kebijakan baru yaitu masyarakat mulai boleh beraktivitas kembali, namun tetap menjaga protokol kesehatan yang dikenal dengan sebutan *New Normal* atau masa Adaptasi Kebiasaan Baru (AKB). Beberapa perkantoran, pertokoan dan mall mulai membuka kegiatannya kembali dengan tetap menjaga protokol kesehatan. Selain itu, sebelum memasuki wilayah perkantoran, pertokoan dan mall, dilakukan pengecekan suhu dan beberapa menerapkan penyemprotan disinfektan khusunya di wilayah perkantoran.

*Prototype* alat absen beserta akses masuk kantor untuk meminimalisir penyebaran virus covid-19 berbasis *Internet of Things* (IoT) dan *face recognition* adalah sebuah sistem yang digunakan untuk proses pencatatan absensi karyawan serta akses karyawan dengan menggunakan pengenalan wajah dan deteksi suhu tubuh seseorang dalam proses absensi dan untuk akses masuk ke dalam kantor, cara ini digunakan untuk meningkatkan dan menghindari penularan virus covid-19 pada lingkungan tempat kerja. Dalam pembuatan sistem *prototype* alat absen beserta akses masuk kantor ini, menggunakan beberapa komponen seperti ESP32-Cam, Wemos D1 Mini, sensor suhu MLX90614, sensor jarak ultrasonic, motor servo serta penggunaan *database*.

Berdasarkan hasil perhitungan nilai presentase pengujian sistem secara keseluruhan pada sistem *prototype* alat absen beserta akses masuk kantor untuk meminimalisir penyebaran virus covid-19 berbasis *internet of things* (iot) dan *face recognition* dengan metode *eigenface* yang telah dibuat didapat nilai keberhasilan sistem sebesar 90%. Sistem yang dibuat mampu meminimalisir penyebaran virus covid-19 pada lingkungan kantor.

Kata kunci : *Face Regconition, Eigen Face, Arduino, Database, IOT*

# *ABSTRACT*

*Indonesia against the covid 19 viruses. Almost all Government aid funds are to overcome and minimize additional cases of COVID-19. Several months later, the PSBB policy bore fruit. The number of confirmations due to the COVID-19 virus has begun to decline, so the Government has made a new policy, namely that people can start to return to their activities, but still maintain the health protocol known as the New Normal or the Adaptation of New Habits (IMR). Several offices, shops and malls have started to reopen their activities by maintaining health protocols, namely using masks, washing hands and always keeping a distance. In addition, before entering the office area, shops and malls, temperature checks are carried out and the application of several disinfectants, especially in office areas.*

*The prototype of the absence device along with access to the office to minimize the spread of the Covid-19 virus based on the Internet of Things (IoT) and face recognition is a system used for the process of recording employee attendance and employee access by using facial recognition and detection of a person's body temperature in the attendance and attendance process. For access to the office, this method is used to increase and avoid the transmission of the Covid-19 virus in the workplace environment. In making the prototype system for the absent device along with access to this office, using several components such as the ESP32-Cam, Wemos D1 Mini, MLX90614 temperature sensor, ultrasonic distance sensor, servo motor and the use of databases.*

*Based on the results of the calculation of the percentage value of overall system testing on the absent tool prototype system along with office entry access to minimize the spread of the covid-19 virus based on the internet of things (iot) and face recognition with the eigenface method that has been made, the system success value is 90%. The system created is able to minimize the spread of the Covid-19 virus in the office environment*



*Keyword : Face Regconition, Eigen Face, Arduino, Database, IOT*