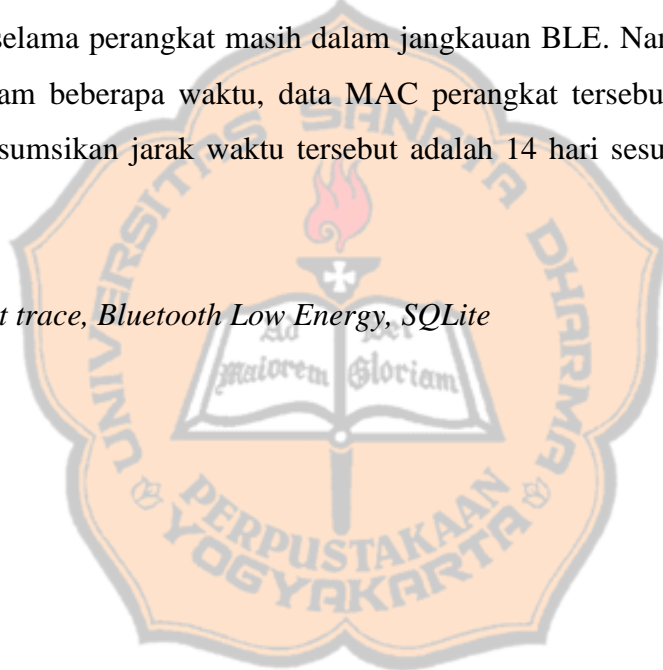


ABSTRAK

Contact trace merupakan suatu metode untuk melacak penyebaran orang terinfeksi. Contact trace dapat menunjukkan data valid seseorang pernah bertemu dengan siapa saja, dalam jangka waktu tertentu. Pada penelitian kali ini *contact trace* digunakan untuk melacak pertemuan antar orang dalam jangka waktu tertentu. Pencatatan pertemuan antar orang akan menggunakan *smartphone* karena saat ini hampir semua orang memiliki dan selalu membawa *smartphone* kemanapun mereka pergi. *Smartphone* nantinya akan menggunakan fitur Bluetooth low energy (BLE) yang sudah ada pada masing-masing perangkat. BLE tersebut akan scanning secara berkala untuk mendeteksi keberadaan perangkat lain di sekitarnya. Ketika BLE menemukan perangkat lain, maka kedua perangkat tersebut akan menukarkan MAC address mereka yang selanjutnya akan dicatat kedalam SQLite. Waktu kontak akan terus menerus di update selama perangkat masih dalam jangkauan BLE. Namun Ketika perangkat tidak terdeteksi dalam beberapa waktu, data MAC perangkat tersebut dalam SQLite akan dihapus, karena diasumsikan jarak waktu tersebut adalah 14 hari sesuai dengan lama masa inkubasi Covid-19.

Kata kunci : *Contact trace, Bluetooth Low Energy, SQLite*



ABSTRACT

Contact tracing is a method for tracking the spread of an infected person. A contact trace can show valid data that a person has met with anyone, within a certain period of time. In this study, contact tracing is used to track meetings between people over a certain period of time. Recordings of meetings between people will be done using smartphones nowadays. Almost everyone has and always carries a smartphone wherever they go. Smartphones will use the Bluetooth low energy (BLE) feature that already exists on each device. The BLE will scan periodically to detect the presence of other devices in the vicinity. When BLE finds another device, then the two devices will exchange their MAC addresses which will then be recorded into SQLite. The contact time is continuously updated as long as the device is within BLE range. However, when the device is not detected in time, the MAC data of the device in SQLite will be deleted, because some of that time is 14 days according to the incubation period of Covid-19.

Keyword : Contact trace, Bluetooth Low Energy, SQLite

