

ABSTRACT

To improve service in security for Indonesian people, especially when reporting crimes, a technology to connect people to authorities or family is needed for quick and accurate follow-ups. In the era of technological development, this could be developed using IoT (Internet of Things) technology that is applied to a Panic Button connected to the Internet which consists of a microcontroller and GPS Tracker connected to Wi-Fi.

Panic Button works by sending Coordinate from GPS to Cloud (Google Firebase) that is connected to user from Police department using Telegram Application With BOT API. Data from GPS module shows the coordinate from the victim that would be sent to Google Firebase. The coordinate would be processed by BOT API until the user could read the data.

The Panic Button has an accuracy in detecting location with an average shift of location of the actual coordinates about 5.37 meters. The obtained average delay end to end delay in sending messages to the Telegram BOT from NodeMCU is 0,1239 S. The average throughput end to end is about 126,236625 bps, the average of jitter is about 1447,78 ms. The battery life could last for 4 days. This tool is expected to help tracking the location of an event or the victims of disaster, so that it could be followed up quickly and accurately.

Keywords : *Panic Button, IoT, Google Firebase, BOT API*