ABSTRACT

Theft of motor vehicles, especially motorbikes, is a crime that often occurs. This crime is caused by the lack of a motorcycle security system. Motorcycle manufacturers actually have implemented safety technology for motorbike assemblies, but it is still less effective for securing motorcycles.

The solution for securing motorbikes, by applying security system technology that is reliable and can be monitored remotely. The purpose of this research is to design a motorcycle security system with an IoT-based fingerprint sensor and to ensure a reliable security system. The method used in the design of this system with the study of literature, discussion, observation, experimentation, and analysis.

Through the fingerprint security system, the percentage of motorbikes to be stolen is smaller and by applying IoT to the fingerprint system, the motorcycle owner can find out the last user of the motorcycle, the condition of the fingerprint sensor, the condition of the motorcycle on or off, and the owner can override the ignition system if the sensor fingerprint is broken or broken.

There were 4 tests carried out. User testing with registered fingerprints, unregistered fingerprint users, dirty fingerprint sensors, and dirty fingerprints. The system accuracy rate for registered users reaches 92% and for unregistered users reaches 100%.

Keywords :Fingerprint, Internet of Things, Motorcycle