ABSTRACT

The development of technology in vehicle security system has encouraged manufacturers to produce vehicle security system that is increasingly enhanced. After being developed in four-wheeled vehicles, now improved security system at two-wheeled vehicle. Needs a security system on motorcycle manufacturers are pushing to improve the security system for its products. One of the security systems that are developed are locking system with remote keyless remote keyless system.

Keyless System need communications on the application so that it can be used in wireless using NRF24L01 module and Arduino. The data to be sent in wireless remote receiver module with between first encrypted with AES algorithms to secure data on the module information is sent in the form of cipher, and then the receiver (receiver) will receive the cipher and change it back to the process of decrypting the original data into the form on the same key modules.

The test results obtained in testing, remote keyless using NRF24L01 can be implemented at a distance of 1 meter for up to distance 4 meters, the original data is successfully sent in the form of cipher and successfully transformed into the original data through the process of decryption. Based on the test system, remote keyless systems made to work as expected, namely motorcycles can be activated if the Plain, Key, and ID match between the remote and the motorbike.

***Keywords** : Decryption, encryption, keyless, remote.*