

Abstract

Alongside the development of technology to facilitate multi-family security, security tools are also being developed. Smart home security is one of the very popular security tools in Indonesian home construction. The tool works automatically in real time and has no restrictions on environmental conditions. However, currently available tools still lack consistent accuracy and consistent performance. To solve this problem, the author proposes a smart home security system with an Arduino UNO-connected camera, two relay modules, a magnetic lock, and connecting to a home Internet of Things system. The methods used in the research for this thesis project were: 1. Literature review of ongoing Smart Home Security using facial image feature extraction algorithm research; 2. Deployment of Arduino UNO, 2 Relay Module, and Solenoid Lock; 3. The feature extraction algorithm used is Wavelet, HOG, and Canny Edge. The proposed method is expected to achieve an accuracy of 80

Keywords: Internet of Things, Smarthome Security, Arduino UNO, 2 Relay Module, Database, Solenoid Lock, Wavelet, HOG, Canny Edge.