

## **ABSTRACT**

The global economic crisis currently engulfing the world causing more crimes occur, including theft in buildings. Often we hear about the robbery in the building, such as apartments. Therefore to maintain the security of the building required the application of BAS (Building Automation System) technology. Where in terms of security, BAS often associated with Building Security System (BSS).

Building Automation System is a computerized system, intelligent network of electronic devices that monitoring and controlling the mechanical systems and lighting systems in a building and real time automatically. One of the application of BAS is the Building Security System, a system that integrates multiple security building devices into the computer automatically.

One of the application of BSS in the building effort is to optimize the use of the technical components of the BSS itself such as doorlock, RFID (Radio Frequency Identification), and monitoring tools such as CCTV (Close Circuit Television). This research is about making a BSS that integrate between automatic doorlock using RFID with the monitoring room system using CCTV as a system of monitoring and control of building security. In a SCADA system design and automation, preceded by an analysis of existing security systems and then design the automation scenarios and SCADA systems.

From the results of this research concluded that automation doorlock system using RFID have been successfully designed and integrated with the monitoring room system using a CCTV, so not everyone can access the room with the automatic doorlock so that buildings security systems become more stringent. And the system has been successfully designed flexibly to every element in it, for example in terms of staying at night for students who already have a permit.

Keywords: doorlock, RFID, CCTV, BAS, BSS, PLC, HMI, SCADA, automation