

## **ABSTRACT**

Cyber attacks can causes losses to companies and often comes from various sources. Smart security system is considered as one of the key to overcome the issue. This security system is designed and implemented as web server that uses a Snort-based Raspberry Pi which can monitor server activity when a Denial of Service (DoS) attack occurs. Snort is installed on a Raspberry Pi between the user's work device (PC or Laptop) before connecting to the office network. Snort has a duty as a Firewall and future Intrusion Prevention System (IPS) will connect to machine learning.

This thesis aims to design a web server that uses a Snort-based in Raspberry Pi that will be the dashboard and control its Raspberry Pi. At first, build this security system which it contains Fast Ethernet (FE) module or Wireless Fidelity (WiFi) module due to its work as a router that has 2 side (dual home). This thesis is using main controller server to implement the simulation.

This results are for build web server to be the dashboard and control its Raspberry Pi using main controller server to implement the simulation are done

Keywords: Security Box, Web Server, FE module, WiFi module, Raspberry Pi