

ABSTRACT

In this era, the Internet of Things (IoT) is a hot topic for discussion. This IoT is a concept that states that all devices supporting human life will be connected entirely to the Internet network. The Smart Room is one branch of the IoT concept. Where the tools inside the room can run automatically, according to conditions in the room.

In this final project, we will discuss a Smart Room prototype that uses the Alexa Voice Service (AVS) as an interface between Humans and tools in the room. AVS is a Cloud Based Speech Recognition service that converts voice commands into strings of text that will be read by the IFTTT Applet to provide data to Adafruit Io feeds. Node-Red reads this feed and will execute commands according to the data displayed on the feed.

By using this sistem, roomowners can easily operate the tools in their rooms. From the results of the tests that have been done, it was found that the prototype went according to expectations, and the prototype can be given commands using a variety of different languages. And based on the analysis results obtained, the value of the throughput and delay of the Smart Room prototype test results is inversely proportional. The greater the value of the throughput obtained, the smaller the delay value, and the smaller the throughput value, the greater the delay value obtained.

Keywords : Smart Room, Alexa Voice Service, HassIO, Node-Red, IFTTT, Adafruit IO, Raspberry Pi 3B