ABSTRACT

The development of information and communication technology innovation is currently very rapid. One of these technological developments is the existence of Wireless LAN or Wireless Fidelity (WiFi) technology. Wireless Fidelity (WiFi) technology is currently widely used in almost all areas such as offices, schools, universities, public areas, and other places. This WiFi technology is used to access the internet using a mobile device carried by the user. The device that is used as the infrastructure of this WiFi technology is called an AP or AccesspPoint. SMA Muhammadiyah 23 Jakarta is one of the schools that utilizes WiFi network technology as a facility to support learning activities. The optimal placement of AP points is one of the problems faced in the field of network infrastructure. So it takes a measurement of the coverage area to find out whether the signal strength is good or bad.

The research process begins with identifying problems. The problems discussed in this study are coverage area and signal strength on the WiFi network at SMA Muhammadiyah 23 Jakarta. Next is data collection. This data collection was carried out at SMA Muhammadiyah 23 Jakarta by checking the location of the WiFi network access point device. After obtaining the data, the parameters to be used are determined, such as coverage and signal strength. After obtaining the data and determining the parameters, then measuring the original data and two engineering or planning data using the Ekahau Site Survey application. The results obtained from the original data are that the coverage and signal strength of the WiFi network at SMA MUHAMMADIYAH 23 JAKARTA is still not evenly distributed throughout the room, especially on the second and third floors.

Keywords : *Wireless Fidelity (WiFi), Access Point, dan Coverage.*