

# Analysis of Standard Signal Strength in Multi Floor Buildings for different Wi-Fi Access Point

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## ABSTRACT

In this research paper, the signal strength behaviour in multi floor building is investigated. The experiment took place at Perpustakaan Tun Abdul Razak 1 Shah Alam and 3 floors were selected for the research purpose which is level 1, level 2 and level 3. Two factors were chosen which is the distance and internal walls that obstructed the signal. The same access point (AP) is selected and measured in 3 different floors and 3 different distances in order to experiment the internal walls and distance effect on received signal strength (RSS). Firstly, Ekahau Heatmapper is used in order to identify the access point available in all 3 floors using map image created using SmartDraw. From the heatmapping result, an AP which having the strongest RSS value is selected for experiment purpose. The measurement was taken horizontally from 12 feet to 36 feet apart and vertically from floor 1 to floor 3. Received signal strength (RSS) is then measured using software called inSSIDer. The same procedures were repeated for another AP to compare their performance. Results for all AP's are displayed using online software named onlinecharttool.

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