

LIST OF FIGURES

Figure 1 2.4Ghz Wi-Fi band	6
Figure 2 PPDIOO (UMAM, 2019)	7
Figure 3 Conceptual Model.....	15
Figure 4 Stages of Problem Solving	16
Figure 5 Network topology	21
Figure 6 Ekahau signal noise ratio.....	23
Figure 7 Signal strength 4 th floor.....	23
Figure 8 Signal strength statistic 4 th floor.....	23
Figure 9 Signal strength 5 th floor.....	24
Figure 10 Signal strength statistic 5 th floor.....	25
Figure 11 Signal strength 6 th floor.....	26
Figure 12 Signal strength statistic 6 th floor.....	26
Figure 13 Signal strength 7 th floor.....	27
Figure 14 Signal strength statistic 7 th floor.....	28
Figure 15 Ekahau signal interference ratio	29
Figure 16 Interference Ratio 4 th floor	29
Figure 17 Interference Ratio 4 th floor	30
Figure 18 Interference Ratio 5 th floor	30
Figure 19 Interference statistic 5 th floor.....	31
Figure 20 Interference Ratio 6 th floor	32
Figure 21 Interference Ratio 6 th floor	32
Figure 22 Interference Ratio 7 th floor	33
Figure 23 Interference Ratio 7 th floor	33
Figure 24 Wireshark testing Peak Time 4 th Floor	34
Figure 25 Wireshark testing Peak Time 5 th Floor	35
Figure 26 Wireshark testing Peak Time 6 th Floor	36
Figure 27 Wireshark testing Peak Time 7 th Floor	37
Figure 28 Wireshark testing free time 4 th floor.....	38
Figure 29 Wireshark testing Peak Time 5 th Floor	39

Figure 30 Wireshark testing Peak Time 6 th Floor	40
Figure 31 Wireshark testing Peak Time 7 th Floor	41
Figure 32 Testing scenario	42
Figure 33 QoS formula (Naim et al., 2022)	43
Figure 34 Ekahau channel	46
Figure 35 Ekahau access point positioning	46
Figure 36 Simulation result before and after at 4 th floor	49
Figure 37 Simulation result interference before and after at 4 th floor	50
Figure 38 Simulation result before and after at 5 th floor	50
Figure 39 Simulation result interference before and after at 5 th floor	51
Figure 40 Simulation result before and after at 6 th floor	52
Figure 41 Simulation result interference before and after at 6 th floor	52
Figure 42 Simulation result before and after at 7 th floor	53
Figure 43 Simulation result interference 7 th floor	53