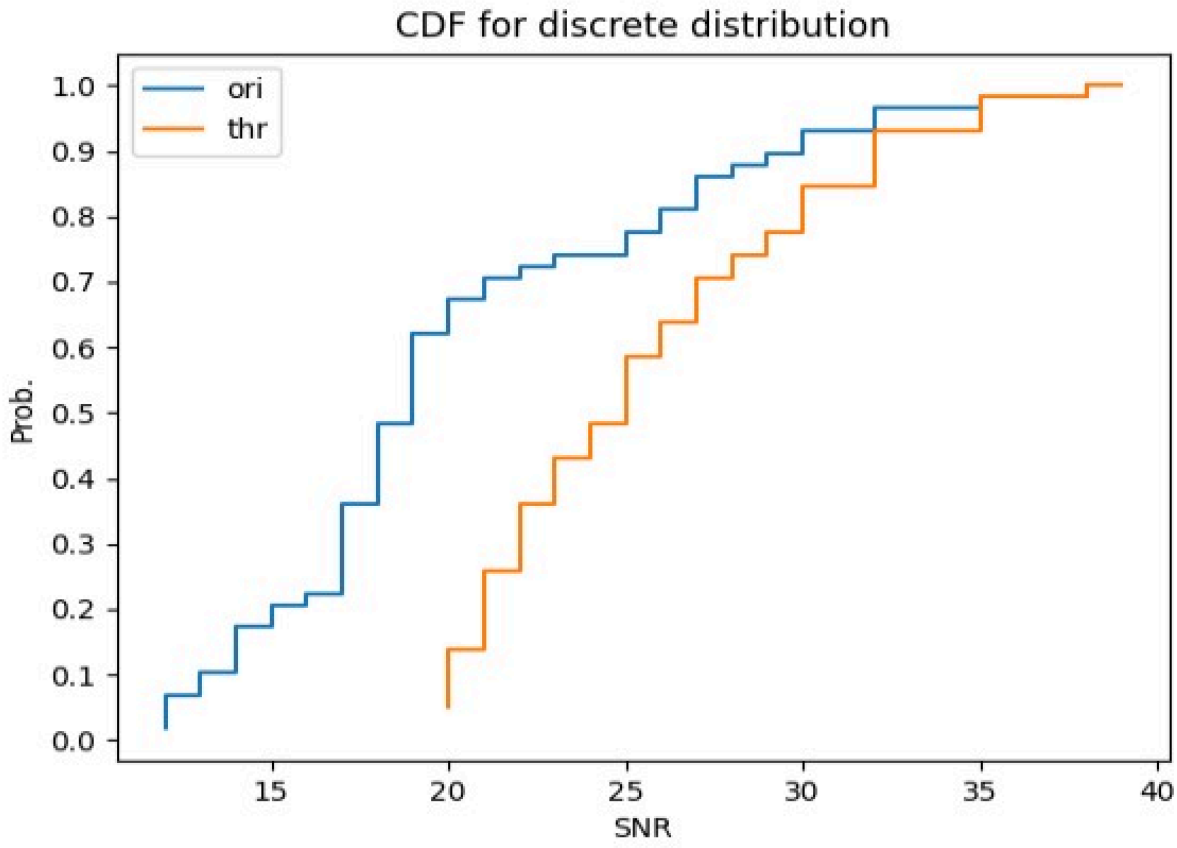
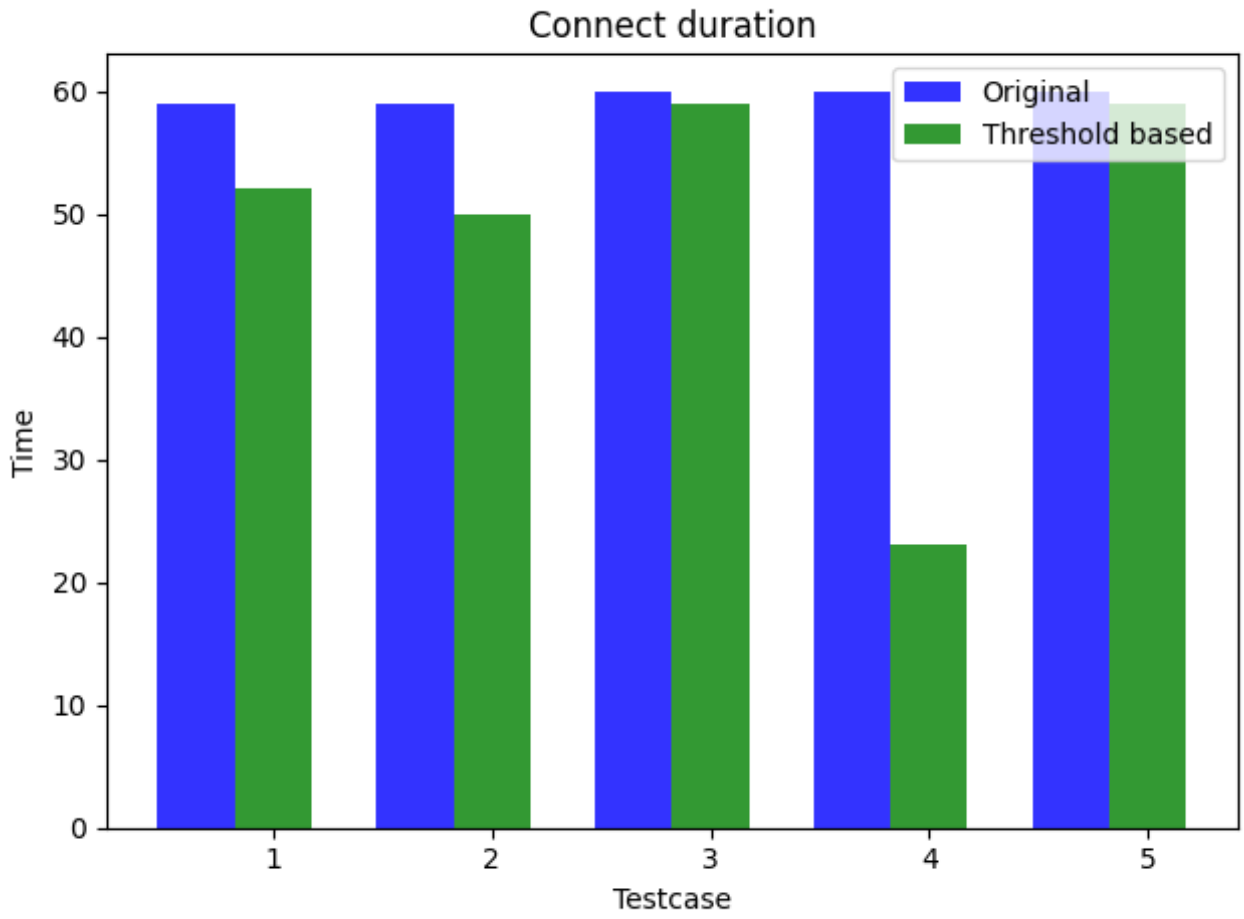
Lab6 Report

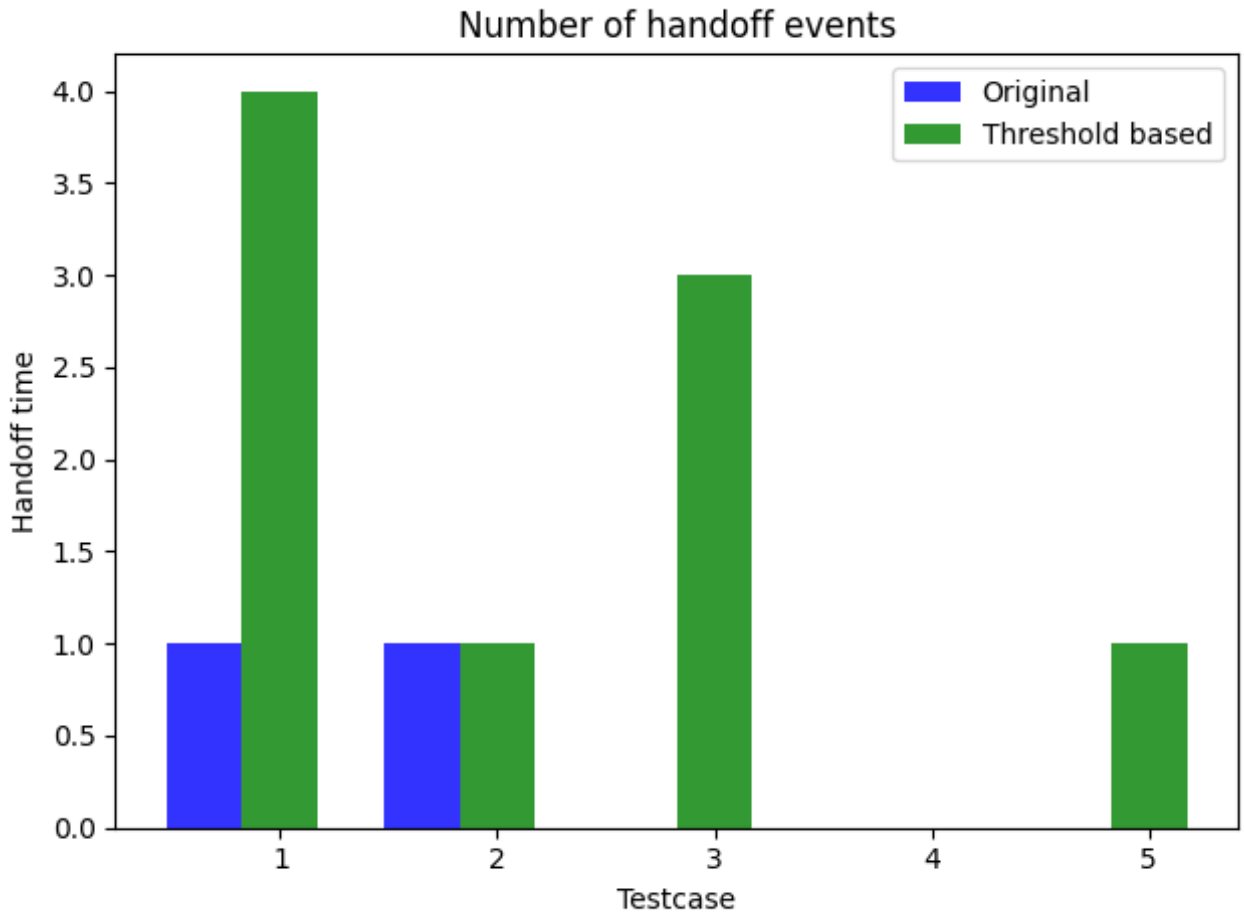
- CDF of packet's SNR



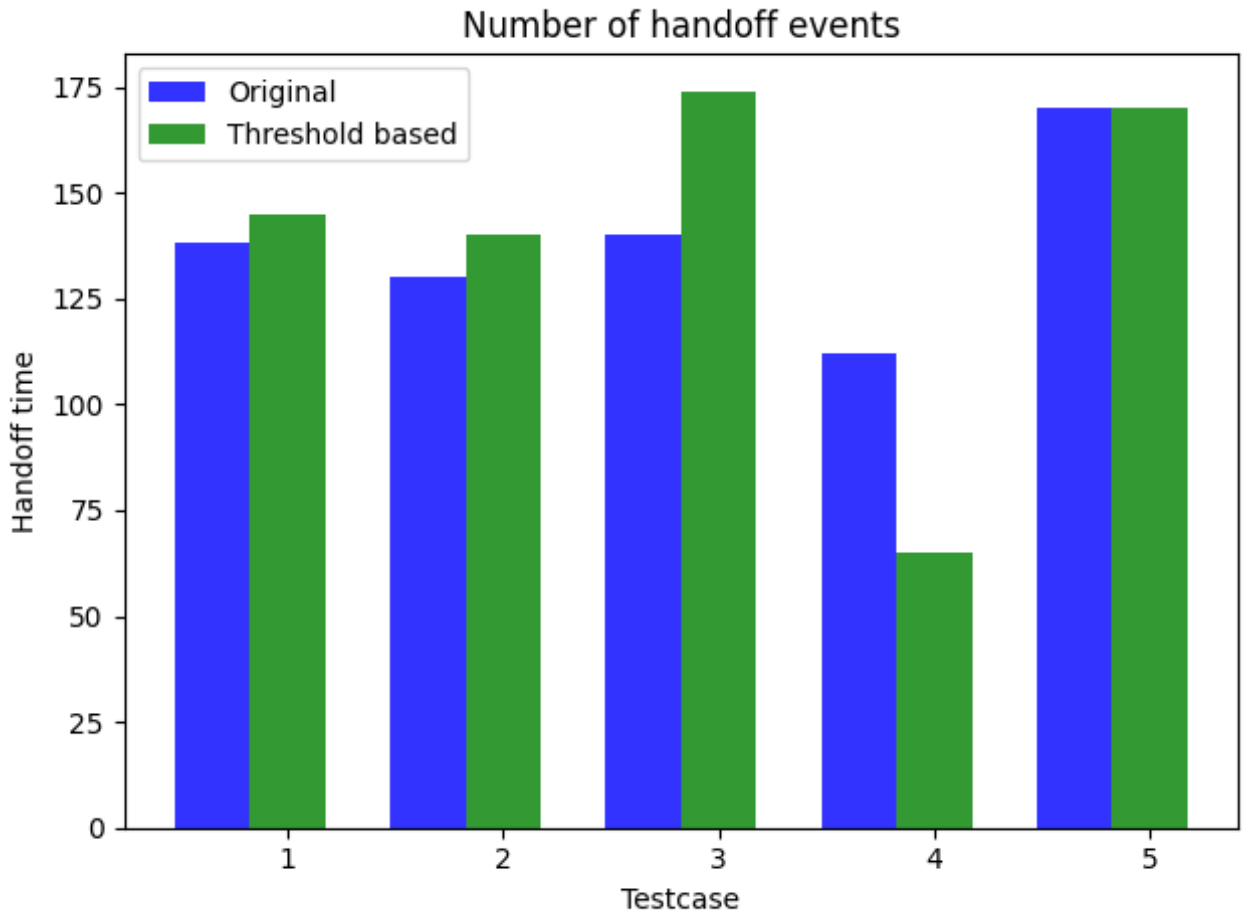
- Connection duration



- Handoff time:



- Theoretical sum rate:



Questions:

1. Compare the advantages and disadvantages of the two handoff algorithms

Ans: ns-3原本的方法只會在完全收不到訊號的時後斷掉連線，因此不會去比較是否有更好的選擇，如果附近有更強的AP也不會斷開連線，優點是減少handoff，缺點是可能長期處在訊號差的AP之下。Threshold的方法相反，會選擇訊號比較強的AP，因此優點是不會有連線到訊號差的AP的問題，缺點是會經常handoff。

2. In task2, how do you make a client walk continuously?

Ans: 調整更新client位置的週期，讓這個週期接近beacon interval

3. In task3, how do you know the occurrence of handoff event? And how do you get connection duration?

Ans: 如果station傳送了一個disassociation message給AP，代表兩者之間即將斷線，此時如果有其他AP回應要求建立連線的封包，我們就可以知道handoff發生了。透過timestamp去記錄每次handoff的時間，全部相加就可以知道connection duration的長度。

- Feedback

1.difficult of class:

8

2. difficult of lab:

9

3. interesting part from class:

How Wifi works.

4. boring part from class:

Network physic layer.

5. challenging part from labs:

How to use ns-3 to do simulation.

6. useful skill from labs:

Learn how to build connection with subnet.

7. Modification:

Hope could describe the lab more specifically and clearly in spec.