

無線通訊網路 project2

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1.程式說明

- 1.先創一個 structure 儲存每台車的資訊
- 2.用毫秒的 arrival rate 去模擬 1000 次得到秒的進車數 在每個入口都判定是否有車
- 3.分別判斷 best entropy threshold 是否有交接 並儲存目前連的基地台編號
- 4.模擬車子前進 並在交接口判斷轉彎及是否出界
- 5 得到新的訊號強度再行判斷

2.數據

1.lamda=0.0005/ms

arrival rate: 0.000499875
AVGmax 22.7007
AVGmin= 17.5981
AVGpower= 20.1494
powermin=2.91146e+09 car_num 165441181
b_num 1943349
powerb 3.75562e+09 car_num 165441181
avg_b: 22.7007
t_num 1183451
powert 3.65419e+09
avg_t: 22.0876
e_num 689862
powere 2.77066e+09
avg_e: 16.7471
my_num 97021276
powermy 3.16778e+09
avg_my: 19.1475

2.lamda=0.00033/ms

lamda= 0.00033
arrival rate: 0.000329946
AVGmax 24.689
AVGmin= 19.1546
AVGpower= 21.9218

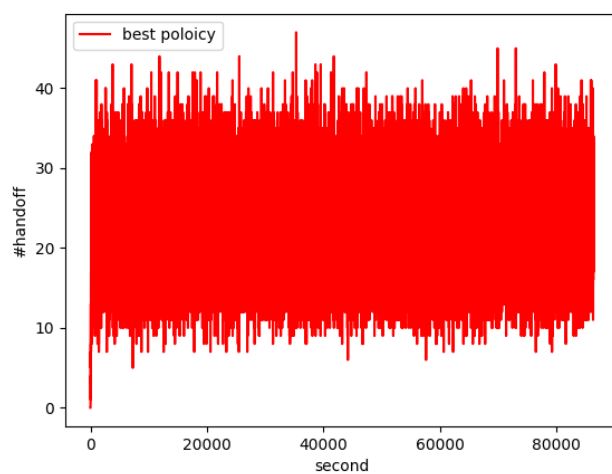
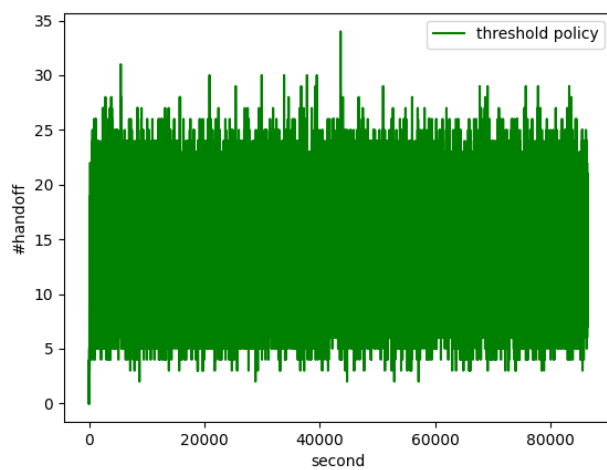
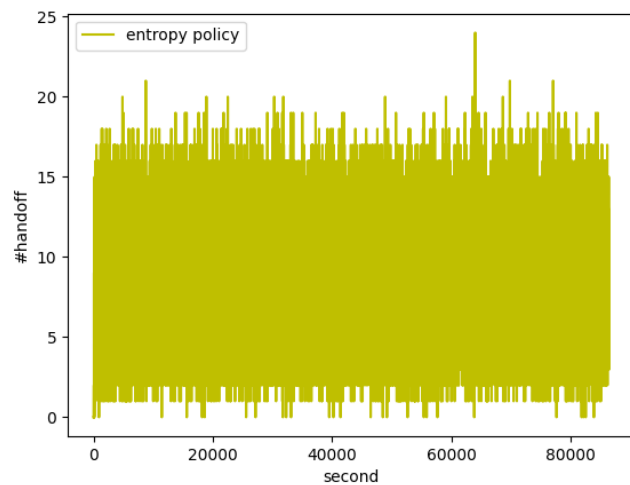
powermin=1.92284e+09 car_num 100385168
b_num 1282279
powerb 2.47841e+09 car_num 100385168
avg_b: 24.689
t_num 781568
powert 2.41163e+09
avg_t: 24.0237
e_num 455213
powere 1.82862e+09
avg_e: 18.2161
my_num 62350872
powermy 2.09261e+09
avg_my: 20.8458

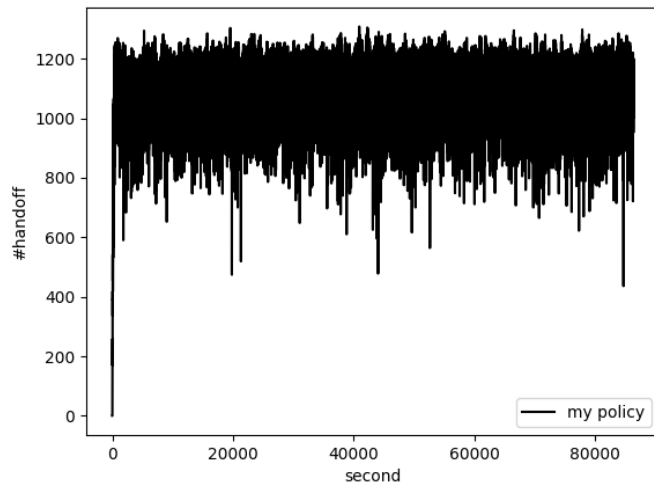
3.lamda=0.0002

arrival rate: 0.00019998
AVGmax 29.6898
AVGmin= 22.9853
AVGpower= 26.3375
powermin=1.1598e+09 car_num 50458521
b_num 775453
powerb 1.4981e+09 car_num 50458521
avg_b: 29.6898
t_num 472668
powert 1.45783e+09
avg_t: 28.8916
e_num 274881
powere 1.10598e+09
avg_e: 21.9185
my_num 35577514
powermy 1.26227e+09
avg_my: 25.016

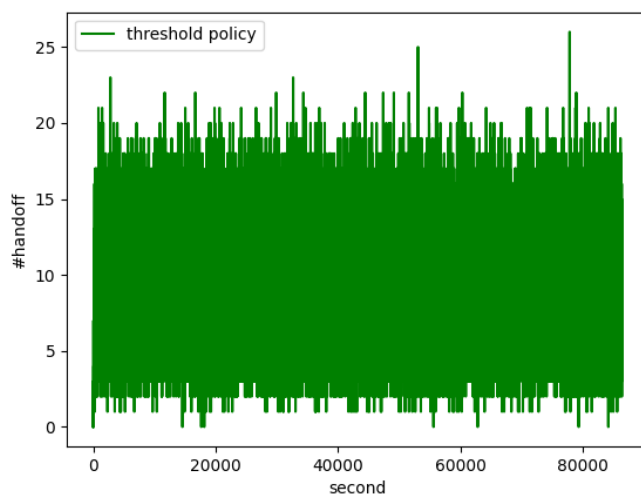
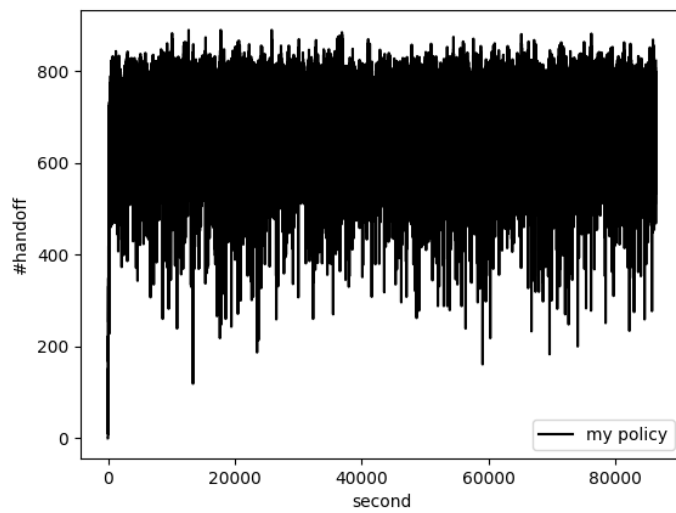
3.圖表

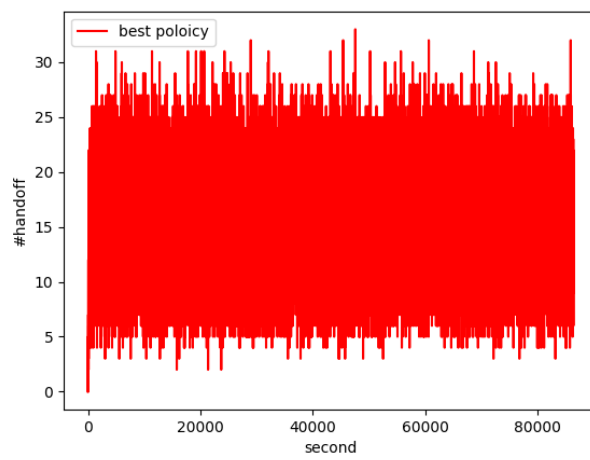
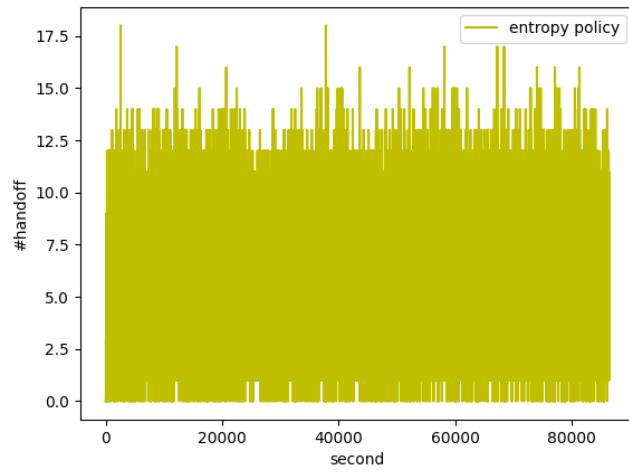
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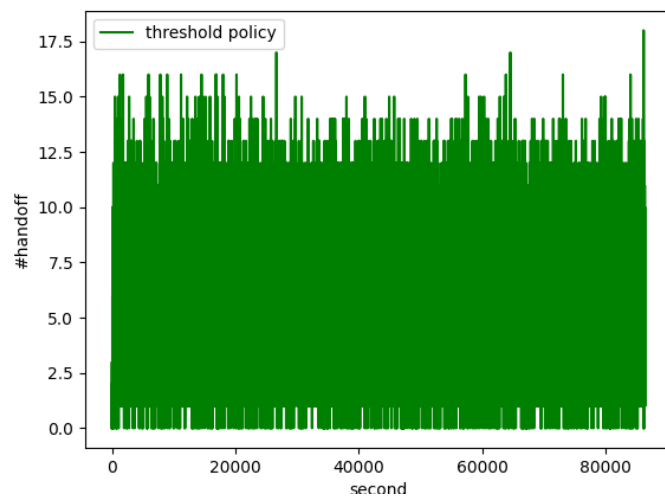


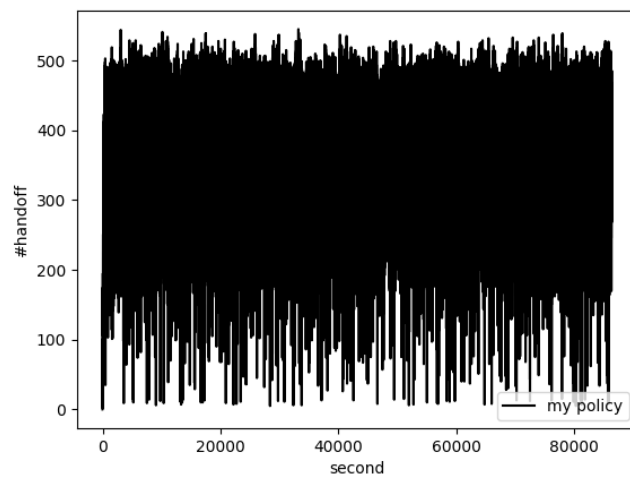
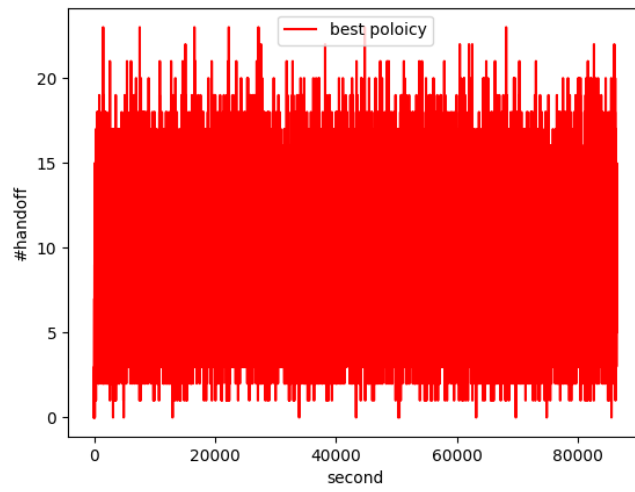
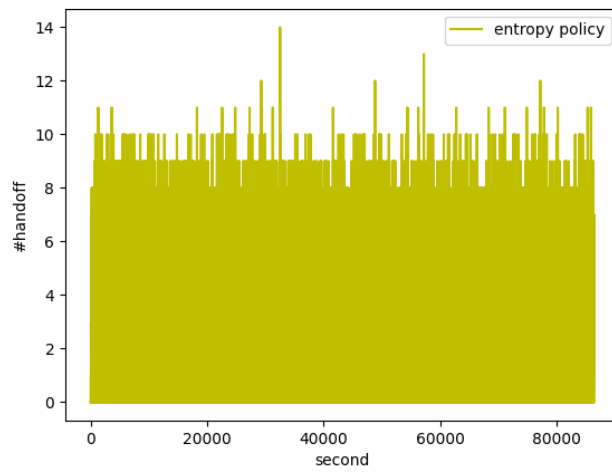
2.lamda=0.00033





Lamda=0.0002





4.心得

這次 project 人是非常艱鉅 想清楚題目就花了非常久的時間
但也成功模擬出 handoff 的情況也對 handoff 更加理解

5.Policy 分析

Best policy: handoff 次數最高 但平均能量也最高應為追求訊號強度為主的 policy

Entropy policy: handoff 次數最少 相對的平均能量也較少 為追求 handoff 次數最少的

Threshold policy: 次數跟能量皆是上兩個的之間 應該是中和兩個 policy 的結果

Mypolicy: 原本想找出 handoff 次數最少的 policy 結過意外發現這個情況下 handoff 會達到最高 而且平均 power 也最高 覺得很特別