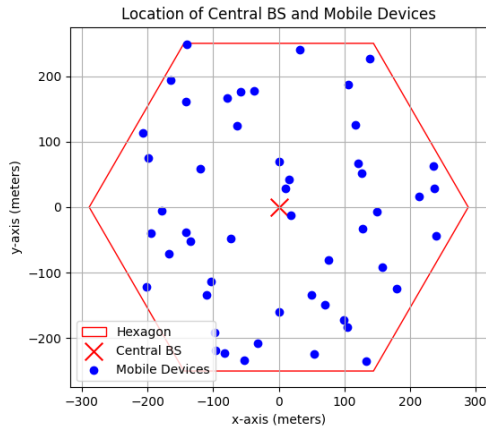
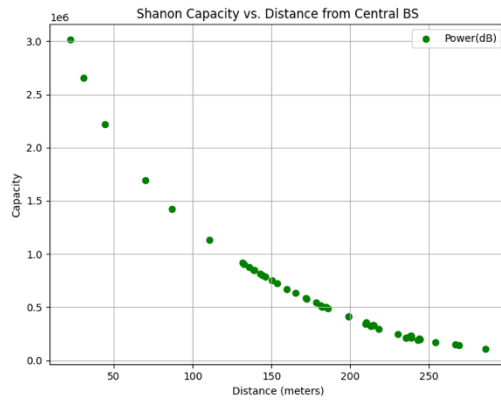


1.1



1.2



Get specific mobile device distance to base station, calculate their SINR with distances to prime base station and other base stations.

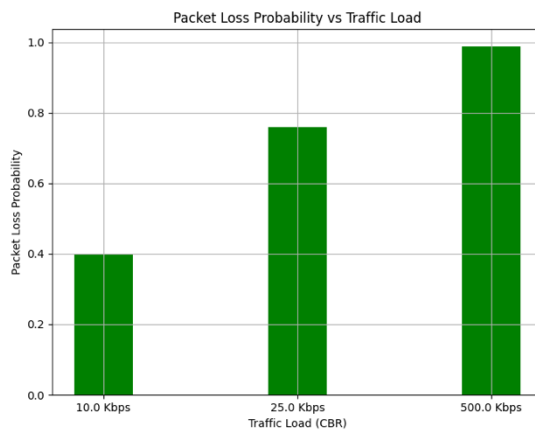
$$SINR = \frac{P_{prime\ BS}}{Interference_{other\ BS}}$$

Thus,

$$C_{Shanon} = B \times \log_2(1 + SINR)$$

1.3

The plot shows that under different traffic load, the change of Packet Loss Probability



By setting,

Low traffic load (bits/s)

$$X_l = 10^3$$

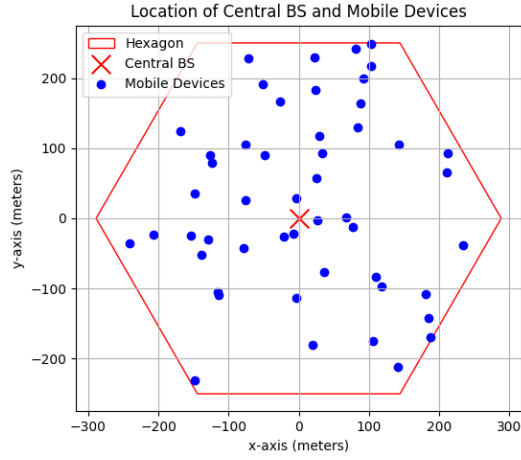
Medium traffic load (bits/s)

$$X_m = 25 \times 10^3$$

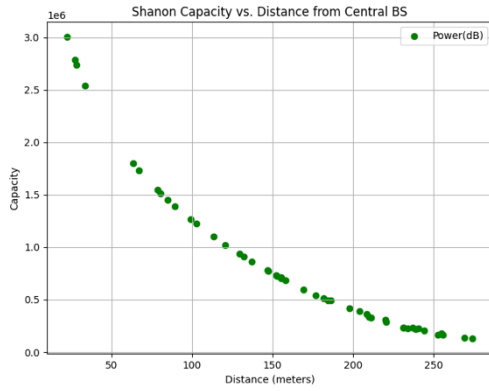
High traffic load (bits/s)

$$X_h = 500 \times 10^3$$

2.1



2.2



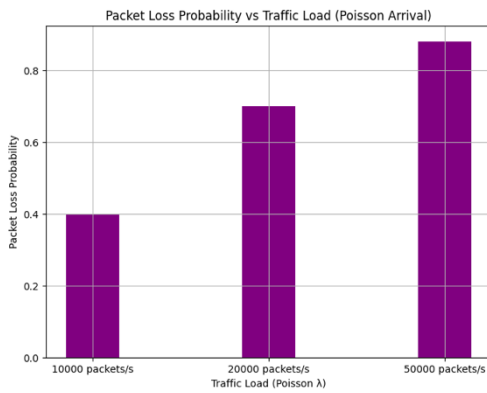
Get specific mobile device distance to base station ,calculate their SINR with distances to prime base station and other base stations.

$$SINR = \frac{P_{prime\ BS}}{Interfernece_{other\ BS}}$$

Thus,

$$C_{Shanon} = B \times \log_2(1 + SINR)$$

2.3



By setting,

Low traffic load (bits/s)

$$\lambda_l = 10^4$$

Medium traffic load (bits/s)

$$\lambda_m = 2 \times 10^4$$

High traffic load (bits/s)

$$\lambda_h = 5 \times 10^4$$