

Final Result



EE-315 PROBABILISTIC METHODS IN EE

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Outlines



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Introduction



- About Project .

Project asks us to measure download speeds through several internet accesses such as, campus WIFI, 3G mobile data access, and 4G mobile data access.

- The goal.

To calculate statistical measurements such as, mean, variance, correlation coefficient, and X correlation. Also, to plot histogram for download speed data.

Methodology



We measured download speeds through two different internet accesses which are 3G mobile Data access and 4G mobile data access by using HUAWEI. And we used SpeedTest.com to measure download speeds.

Measurements



3G Download speed (Mbps)	4G Download speed (Mbps)
7.40	7.62
5.93	8.62
6.29	7.52
4.86	8.40
2.85	12.11
5.52	8.67
192	7.06
5.05	4.54
3.52	6.25
2.34	5.76

Analysis



- Using Mat lab to analyze the samples by calculating :
- Histogram.
- Mean.
- Variance.
- Coloration .
- Coloration coefficient .
- etc...

Result



1

- Mean_3G =
- 4.5680

2

- Mean_4G =
- 7.6550

3

- Varince_3G =
- 3.3434

4

- Varince_4G =
- 4.2228

Result



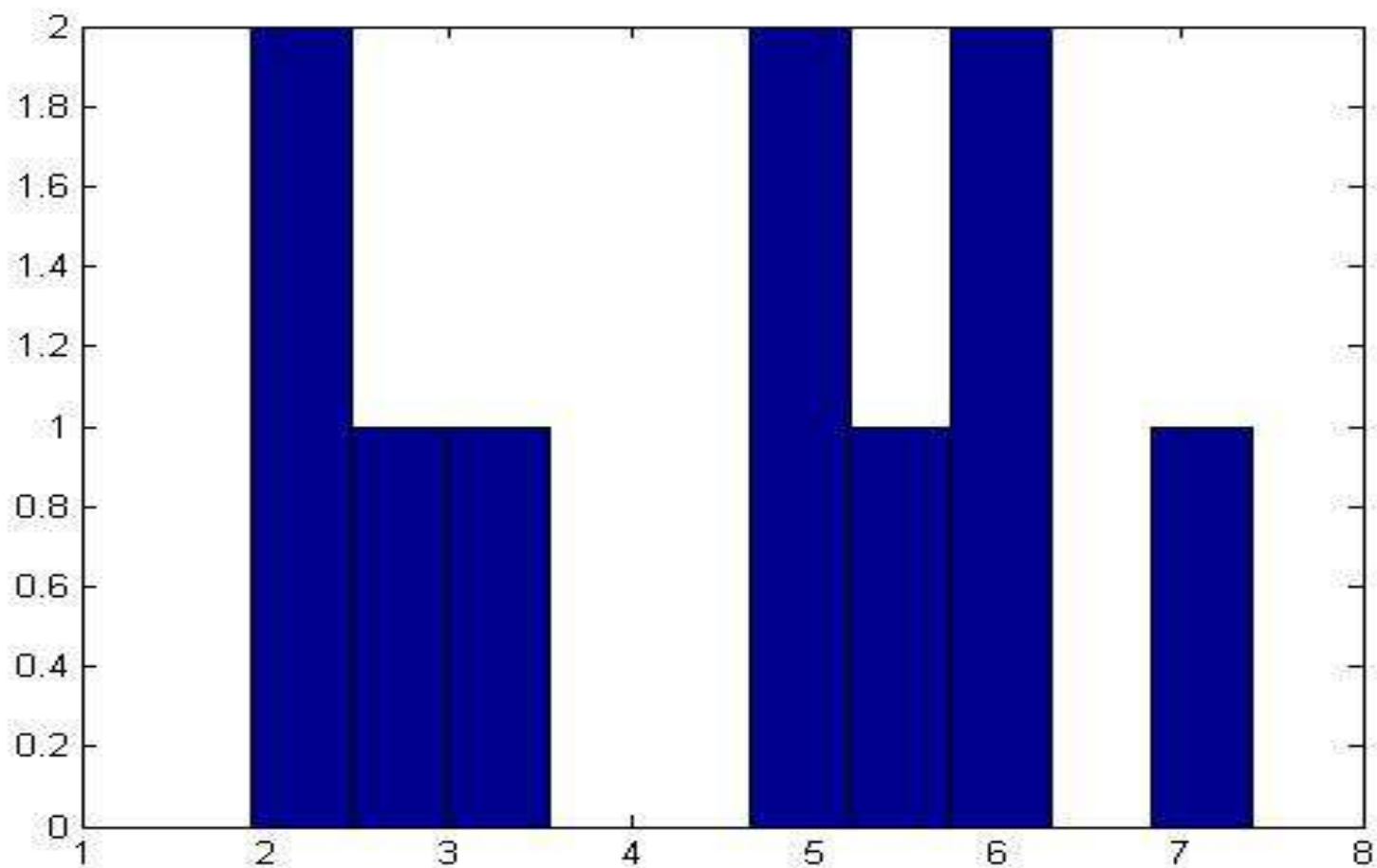
5

- Corrcoef_3G =
- 1

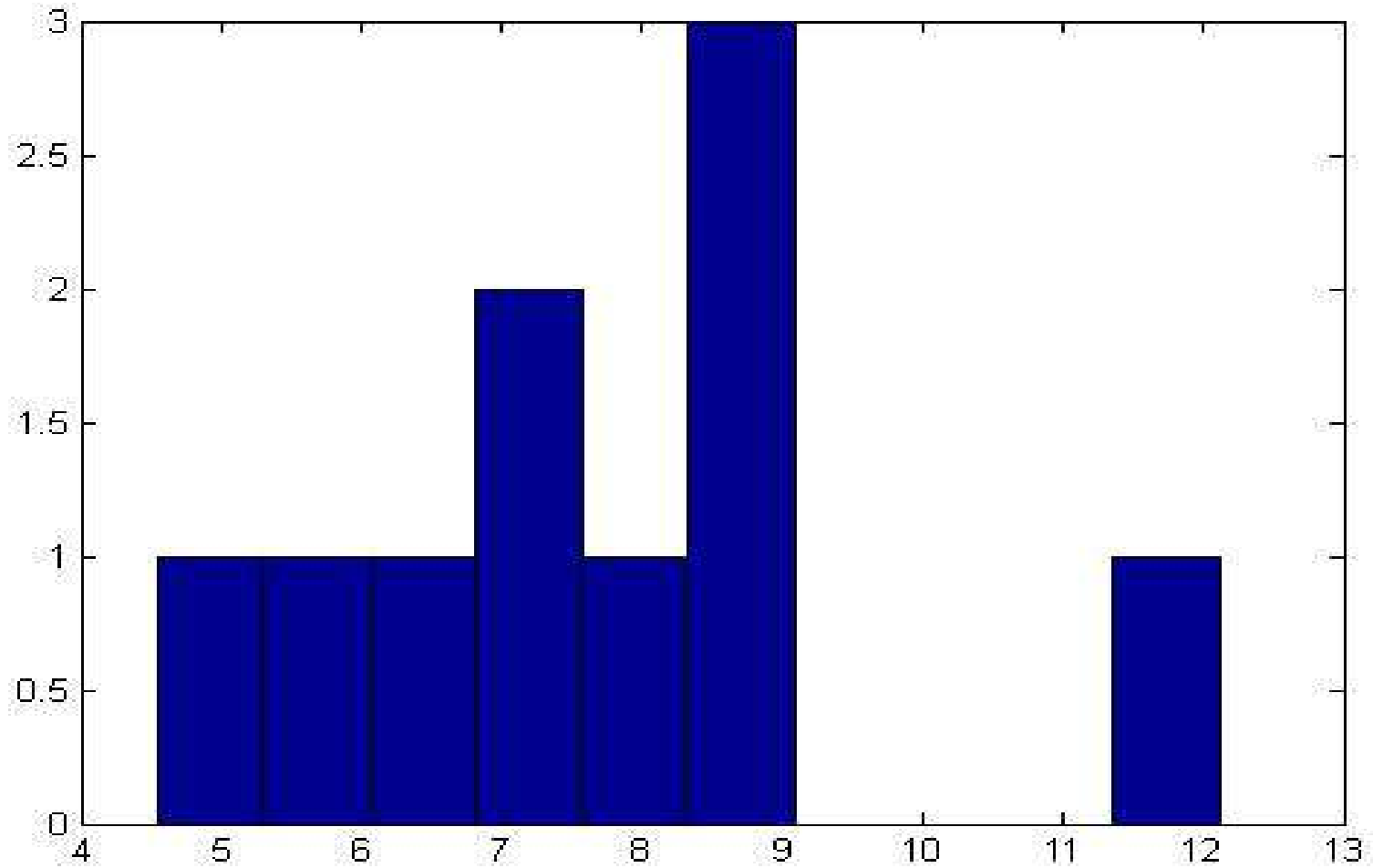
6

- Corrcoef_4G =
- 1

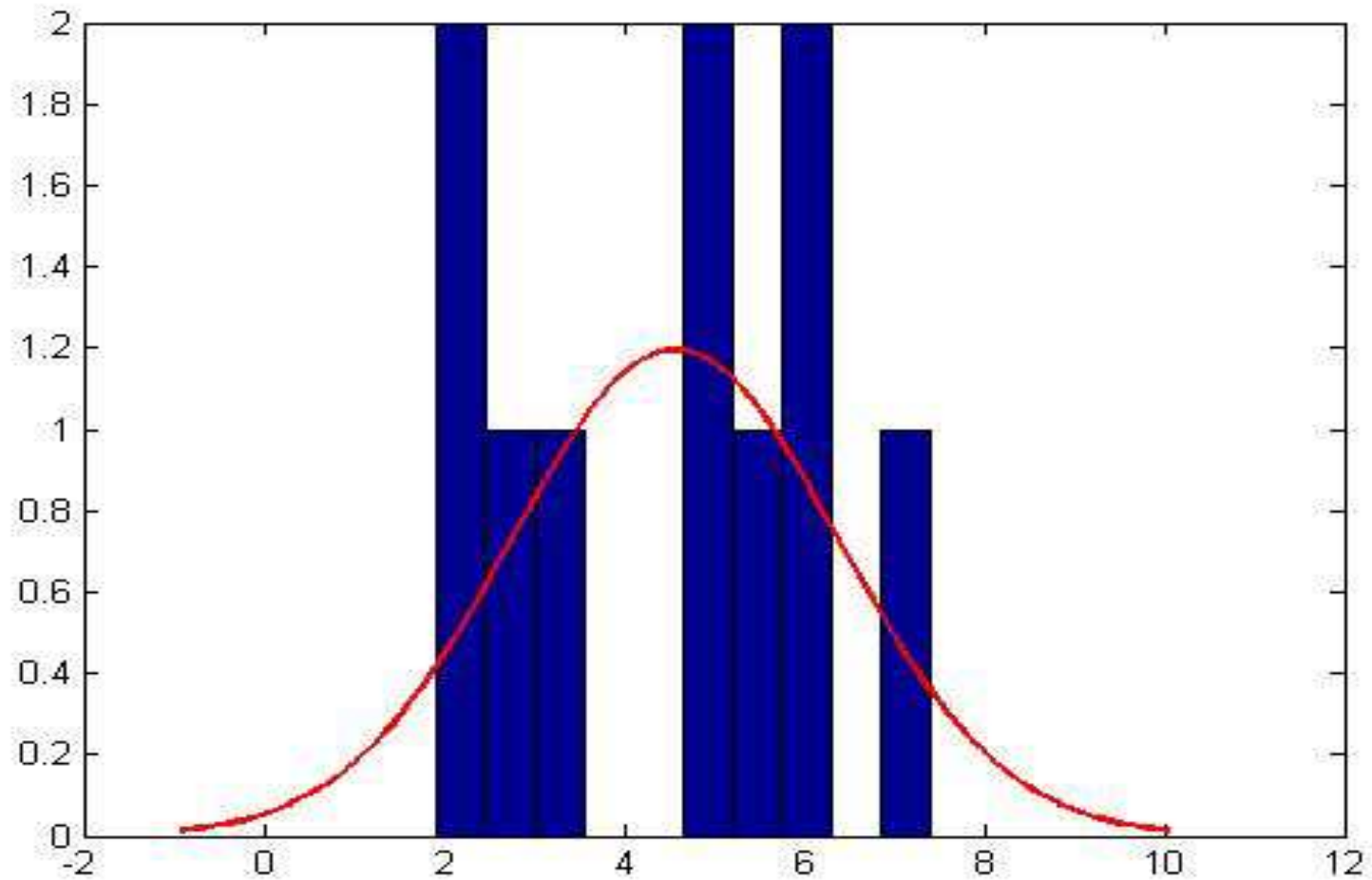
Histogram 3G



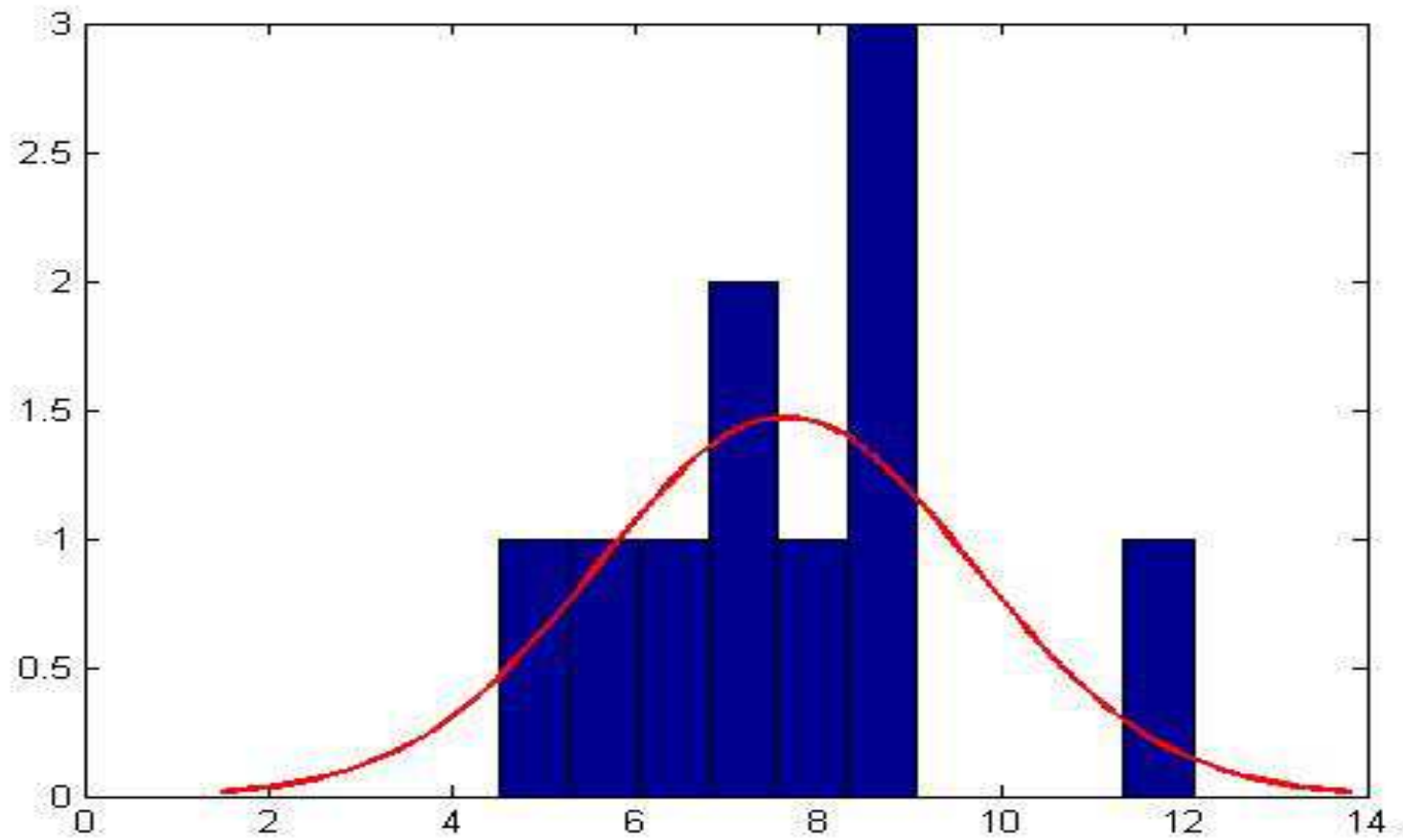
Histogram 4G



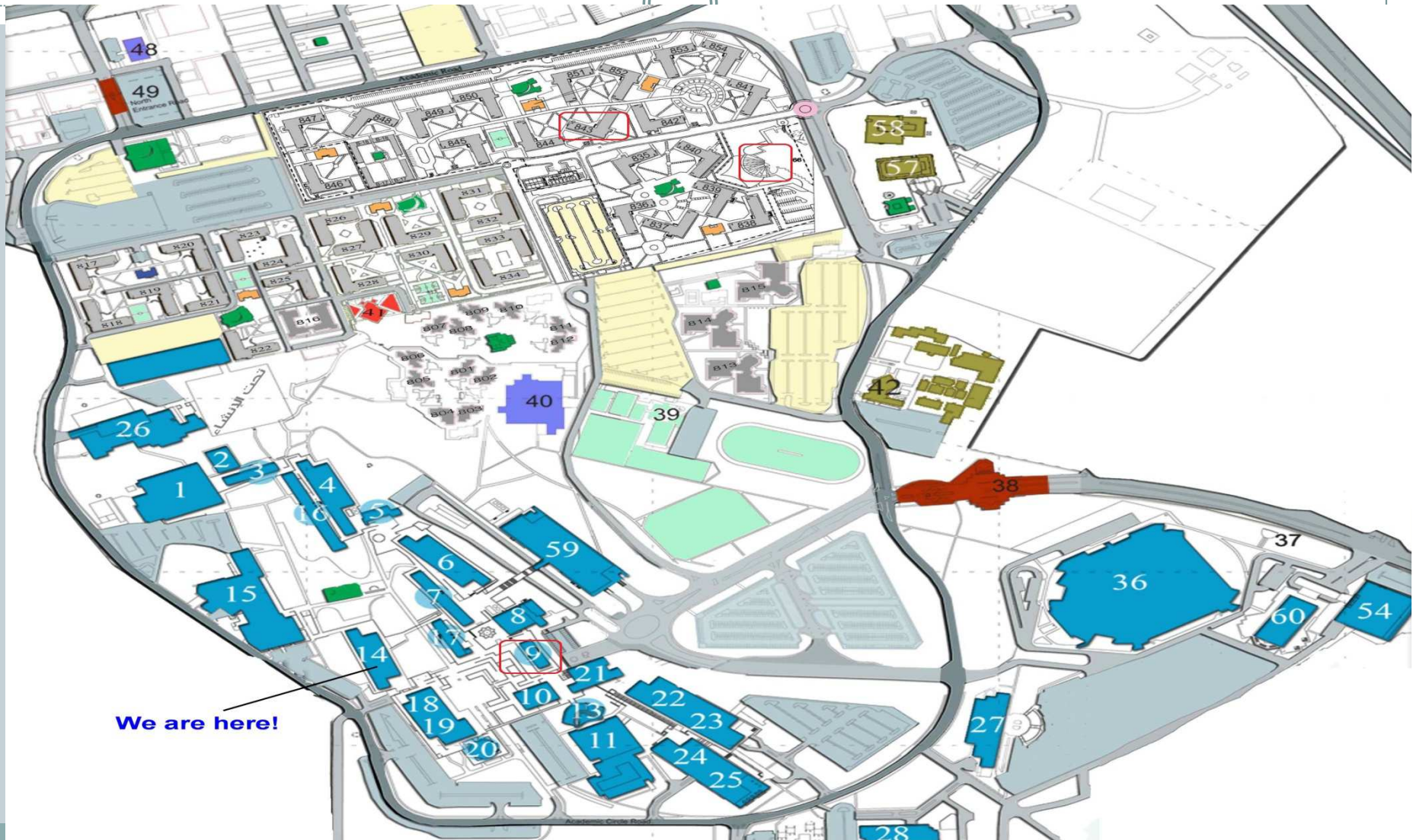
Fit Histogram 3G



Fit Histogram 4G



Map



Conclusion



- After taking download speed data we use Matlab to show which Pdf most likely fit the histogram. And we found that that the Gaussians Pdf most likely fits our histogram.
- In this project we learned how to measure mean, variance, correlation coefficient and cross correlation. Also, how to plot histogram, find Pdf fit and to show which kind of Pdf.