

This is the place we placed access point in our first experiment



in the column is the signal strength from length =1 meter to length =14 meter and in the row is the signal strength from width of 1 meter to 7 meter
 in the last column is the average value of RSS in dBm

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	av
1	-48	-47	-47	-47	-46	-45	-45	-45	-44	-42	-41	-39	-40	-40	-44.07
2	-48	-48	-48	-48	-46	-45	-45	-45	-44	-41	-38	-38	-40	-38	-43.71
3	-50	-47	-47	-47	-47	-46	-45	-45	-43	-41	-38	-36	-38	-38	-43.42
4	-52	-50	-47	-47	-47	-47	-46	-45	-43	-40	-38	-36	-36	-32	-43.29
5	-52	-49	-48	-48	-48	-48	-47	-46	-44	-39	-33	-31	-34	-35	-43
6	-50	-49	-49	-49	-48	-48	-47	-46	-44	-40	-35	-31	-31	-33	-42.86
7	-51	-49	-48	-46	-45	-42	-42	-41	-39	-38	-37	-35	-34	-32	-41.5

Now after finding the average RSS from the average column then we will get -43.121 dBm

The value of SNR in dB is below

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	average
1	38	40	40	40	41	42	42	42	43	44	45	45	46	46	42.43
2	37	38	38	39	41	42	43	43	44	45	46	47	47	47	42.64
3	36	37	38	39	41	42	42	42	45	45	47	50	49	49	43
4	33	35	37	38	40	39	37	38	42	47	49	51	51	50	41.93
5	35	37	37	38	39	38	35	34	38	44	54	56	53	51	42.07
6	37	38	38	37	37	37	36	35	34	41	47	54	55	52	41.29
7	38	40	40	42	42	44	45	46	47	48	50	51	52	54	41.78

The average of SNR from the average column is 42.16 dB

In our second experiment the access point is placed at height of around 2.2 meters from the ground.



in the column is the signal strength from length =1 meter to length =14 meter and in the row is the signal strength from width of 1 meter to 7 meter
in the last column is the average value of RSS in dBm

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	average
1	-43	-38	-36	-34	-36	-39	-41	-44	-45	-47	-49	-50	-53	-48	-43.07
2	-41	-38	-36	-35	-38	-40	-42	-44	-47	-48	-49	-50	-53	-49	-43.57
3	-41	-39	-37	-36	-39	-41	-43	-45	-47	-48	-48	-50	-53	-56	-44.5
4	-41	-40	-38	-37	-40	-42	-45	-46	-48	-47	-47	-49	-52	-50	-44.42
5	-38	-40	-39	-38	-40	-43	-45	-46	-47	-47	-46	-47	-51	-53	-44.43
6	-38	-37	-39	-38	-41	-42	-44	-46	-47	-48	-49	-48	-50	-53	-44.3
7	-40	-39	-43	-43	-44	-45	-46	-47	-47	-48	-49	-50	-51	-52	-46

So the average value of RSS from the average on the right column is -44.32 dBm
Next is the detail of SNR when access point is placed 2.2 meter above the ground

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	average
1	46	48	51	52	51	48	46	43	35	37	38	37	35	24	42.21
2	45	48	50	51	49	48	46	43	38	39	38	37	35	18	41.79
3	46	48	50	51	48	46	44	42	39	39	38	37	35	11	41
4	47	48	50	51	48	45	42	42	40	40	40	38	37	22	42.14
5	49	48	49	50	47	45	42	42	41	41	41	40	36	35	43.29
6	51	51	49	50	47	44	42	41	41	40	39	39	37	36	43.35
7	50	47	46	45	44	43	43	41	40	39	38	38	37	36	41.93

The average of SNR from the average column is 42.24 dB

Question discuss the method you used to determine the average value

Answer: In this question I find the average value of width i length j (i,j) by (1,1)+(1,2)..(1,14)/14 and keep doing it till we get 7 different value in the average column and then plus this seven value and divide by seven to get one last value this way I think it is more accurate than any other way because we obtain average from 98 different position in the room .From our test we can conclude that placing access point

higher than the ground almost not effect on the signal strength or SNR.The only thing which effect this value is the obstacle.