CS252: Lab 1(Wireless Measurements)

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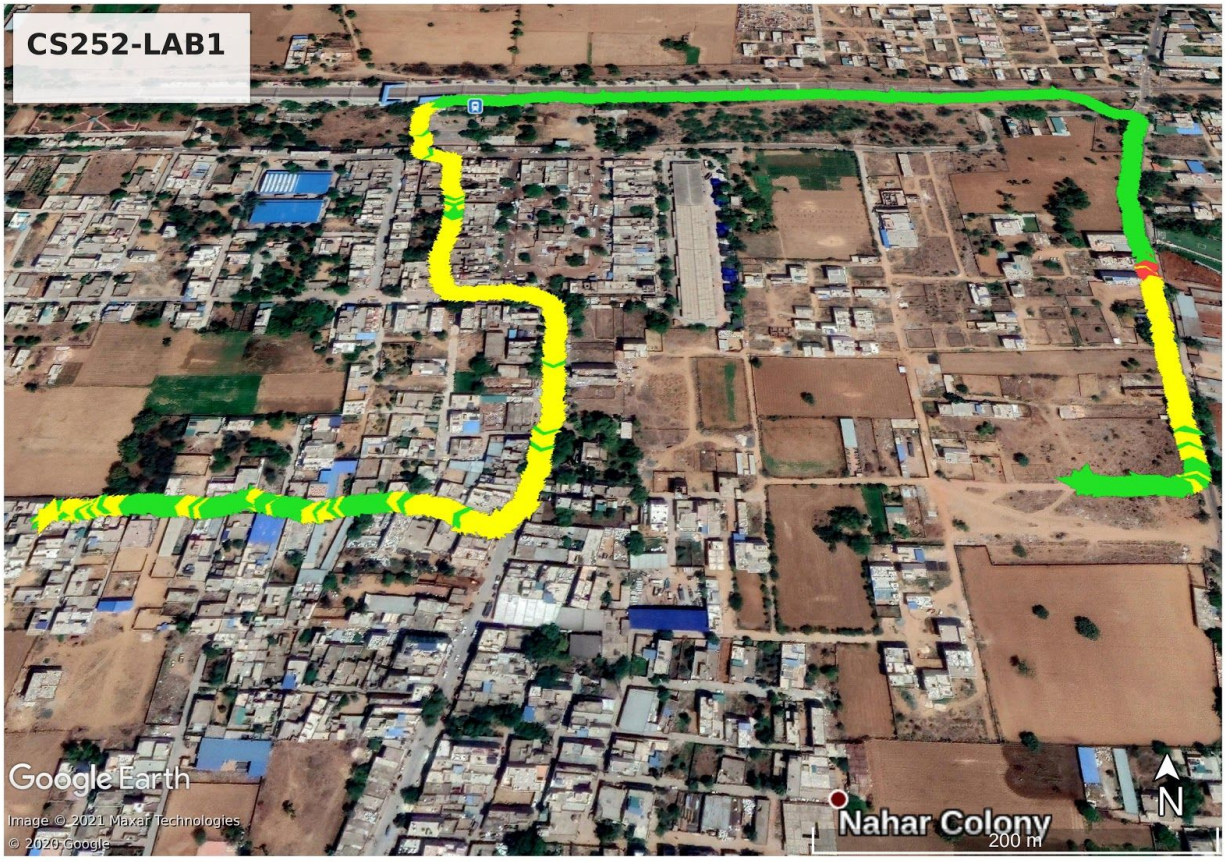
(A)

Good

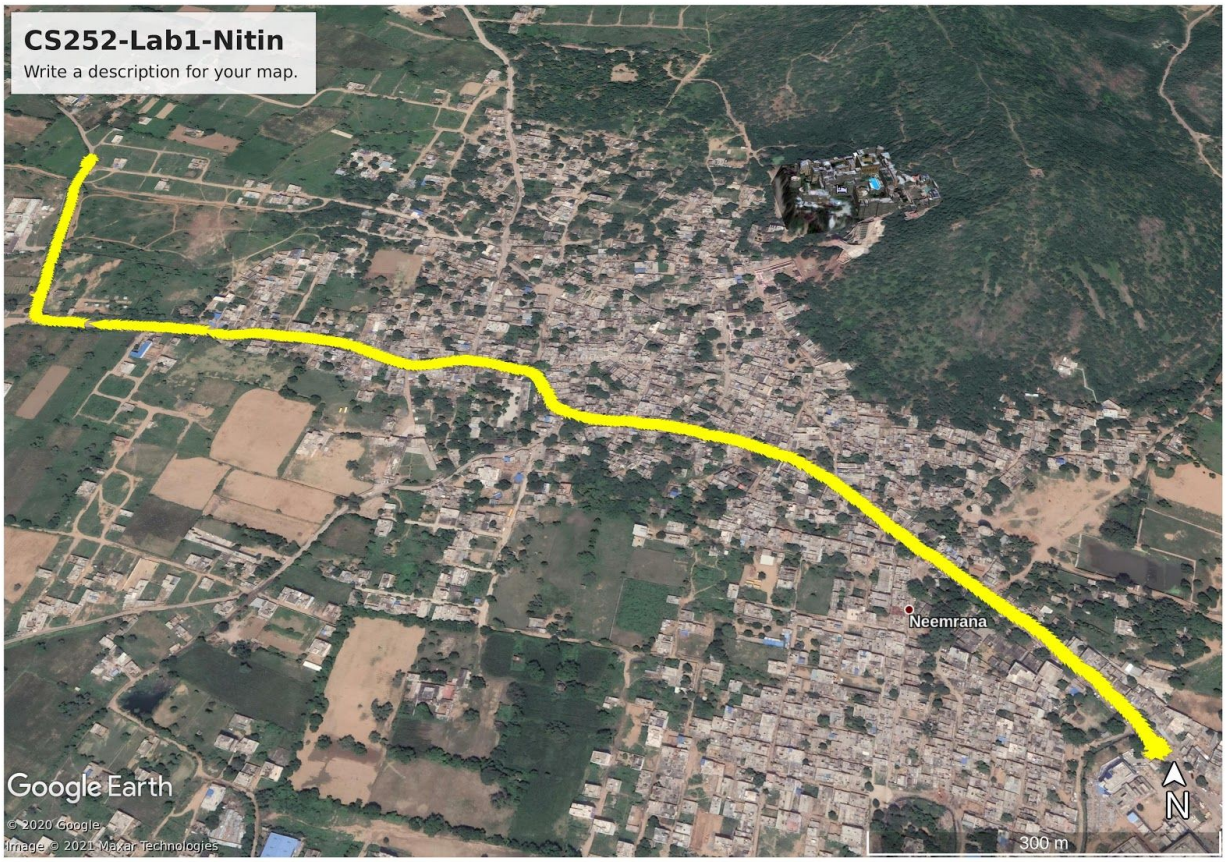
Moderate

Bad

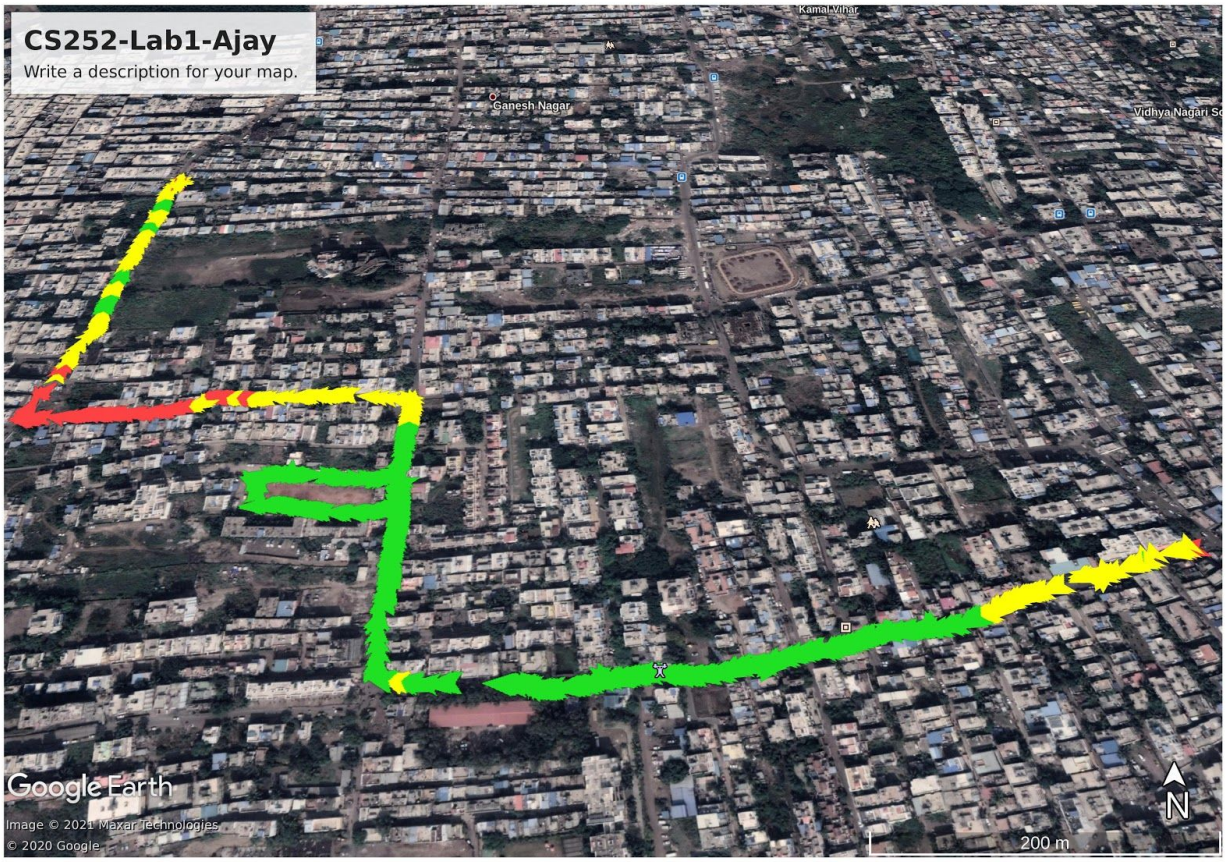
DEEPANSHU’s MAP



NITIN’s MAP


CS252-Lab1-Nitin
Write a description for your map.
Neemrana
Google Earth
© 2020 Google
Image © 2021 Maxar Technologies
N
300 m

AJAY’s MAP


CS252-Lab1-Ajay
Write a description for your map.
Kamal Vihar
Ganesh Nagar
Vidhya Nagari Sc
Google Earth
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200 m
N

(B)

DEEPANSHU’s eNodeB Values

eNodeB Id	Signal Strength(RSRP value)
801006	-89 dBm
91007	-97 dBm
91006	-94 dBm
905396	-61 dBm
801006	-88 dBm
91044	-88 dBm

NITIN’s eNodeB Values

eNodeB Id	Signal Strength(RSRP value)
3098	-88dBm
15119	-55dBm
1792	-99dBm
13443	-83dBm
6428	-111dBm
11536	-99dBm

AJAY’s eNodeB Values

eNodeB Id	Signal Strength(RSRP value)
245733	-105dBm
249010	-112dBm
247422	-92dBm
245916	-70dBm
248940	-81dBm
245489	-101dBm
247394	-104dBm

(C)
For DEEPANSHU’s MAP:-

From the empty land toward the railway station we see yellow at starting because one tower is losing its connection (which is earlier green) and later we see another tower catch the signal and in between the transition we see the small red patches or possibly also because of the destructive interference of the two tower signals. Or maybe because it is a crowded place so tower’s are having difficulty in handling that.
Now from there to the end of the railway station we see a good network connection of that tower but again when we moved to the city we see moderate connection and that too changing its strength again and again may be because the main city has ‘towers’ and signal bandwidth of tower varies.

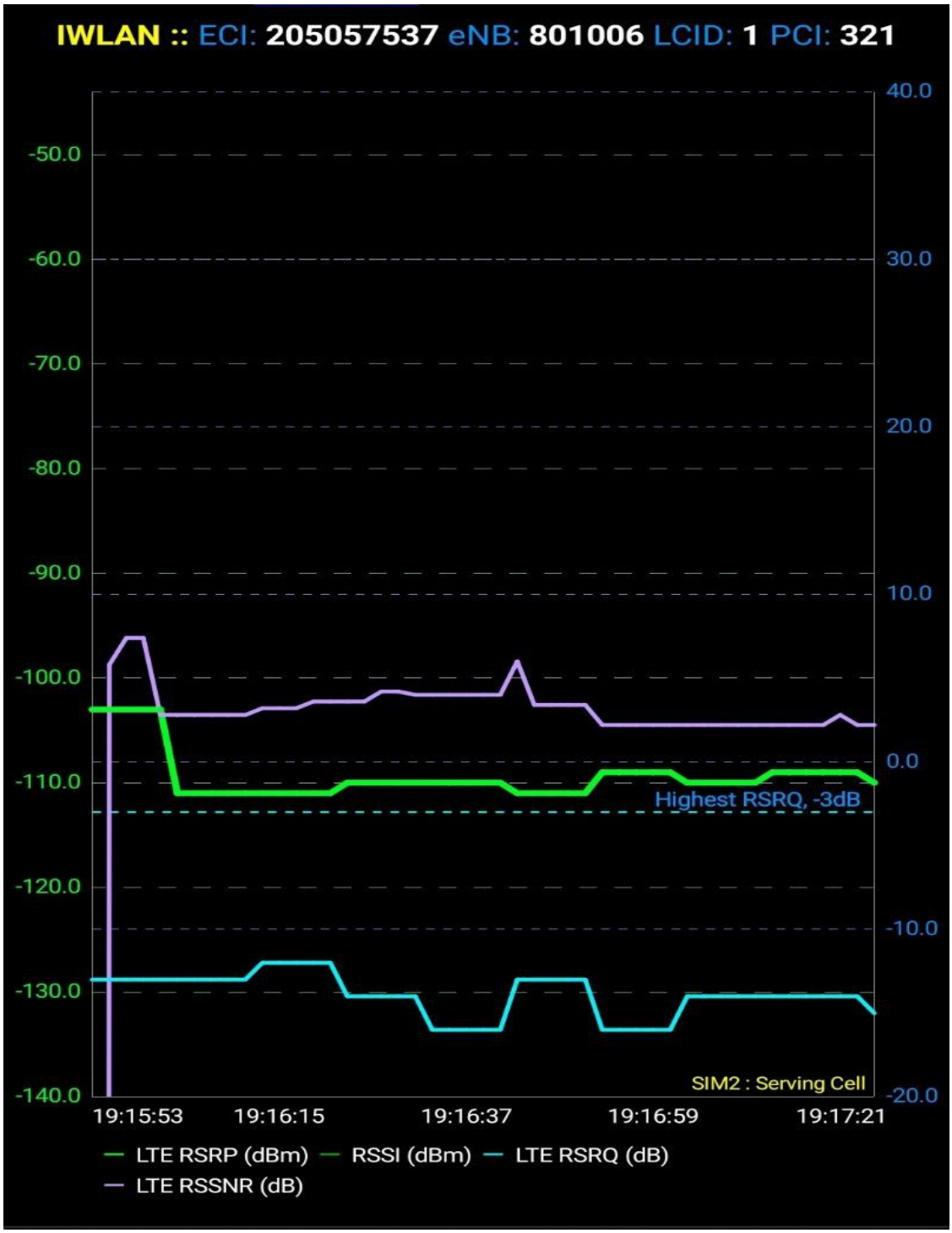
(D)Yes, the RSRP value varies continuously at a fixed location.

below is a plot of how RSRP varies with time at a fixed location:-

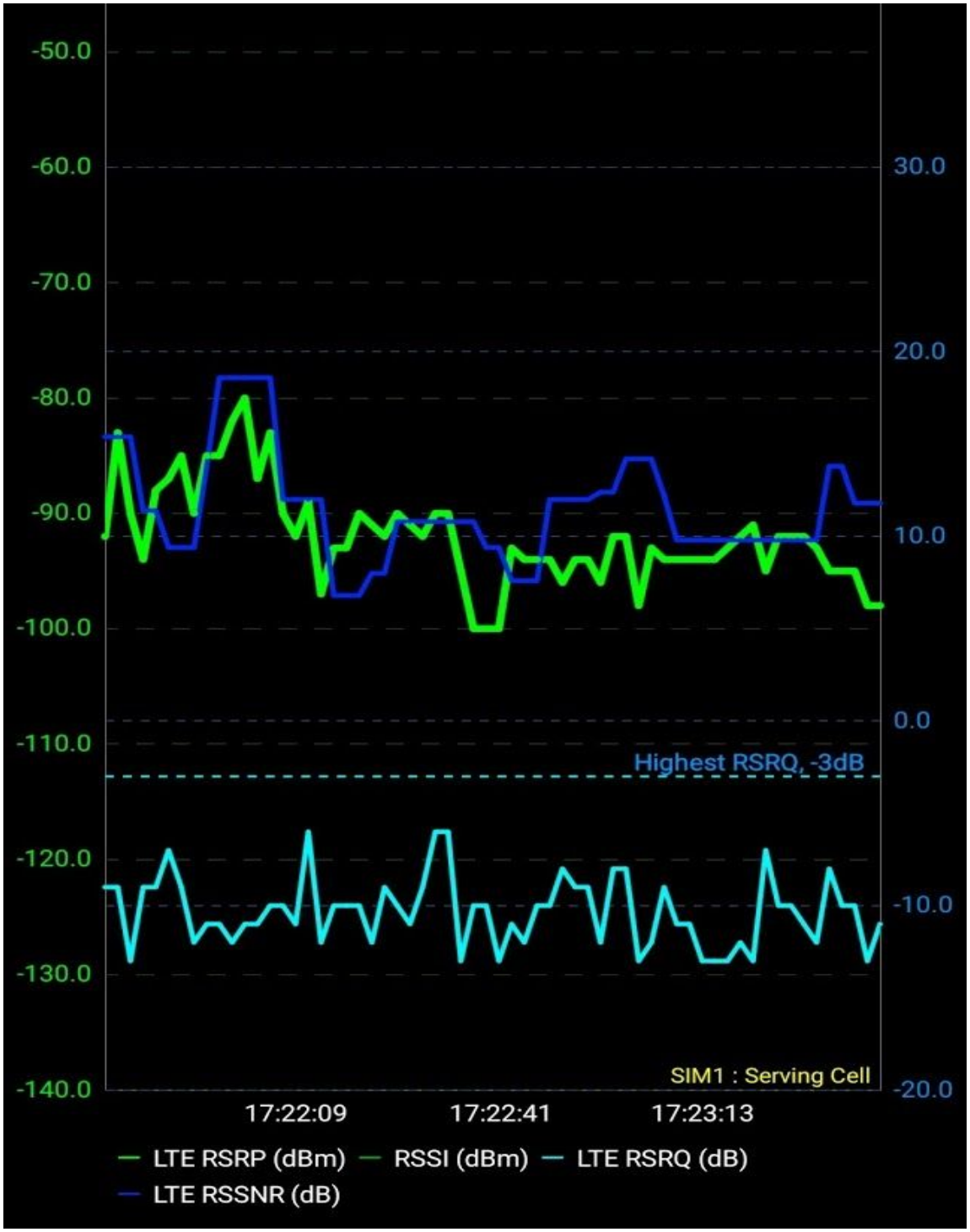
*the green line is showing the variation of RSRP

*time is on x-axis

DEEPANSHU's RSRP graph



NITIN’s RSRP graph



AJAY’s RSRP Graph