



Birla Institute of Technology & Science, Pilani
Hyderabad Campus

FIRST SEMESTER 2020-2021

CE F213 SURVEYING

Lab-1 Dated: 26.08.2020

QGIS basic spatial analysis- Understanding the spatial dataset

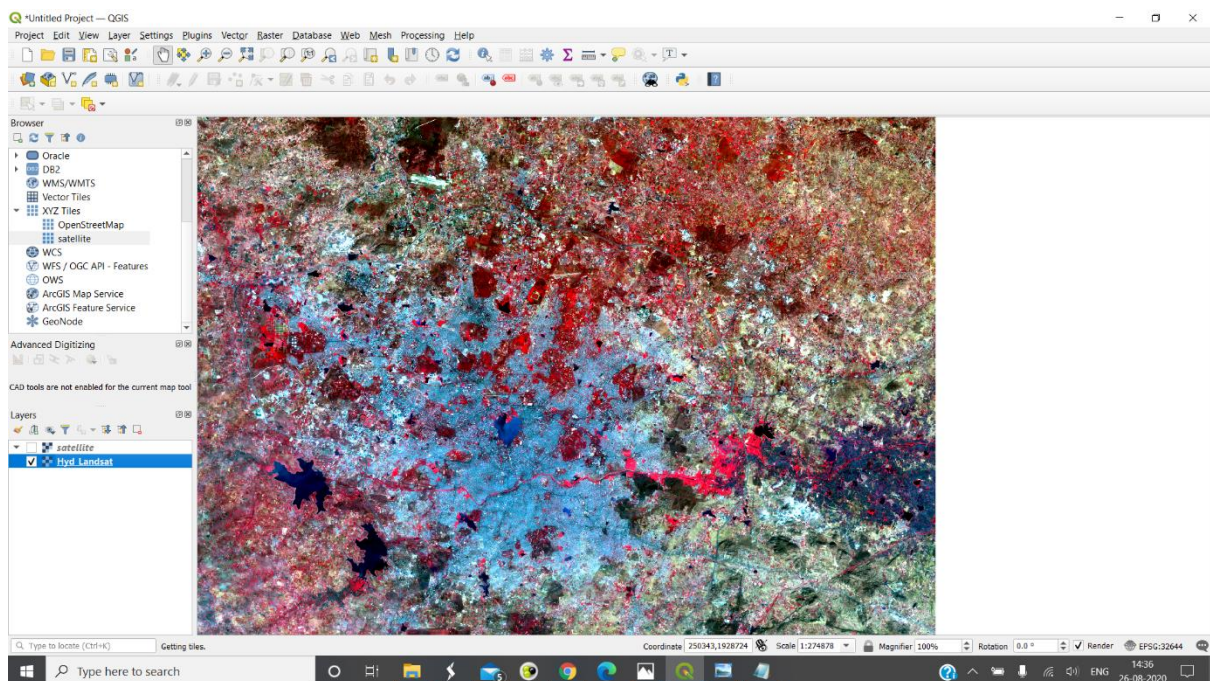
Datasets: Shapefiles of village and road. Satellite image

Introduction to Spatial dataset: Raster and Vector format

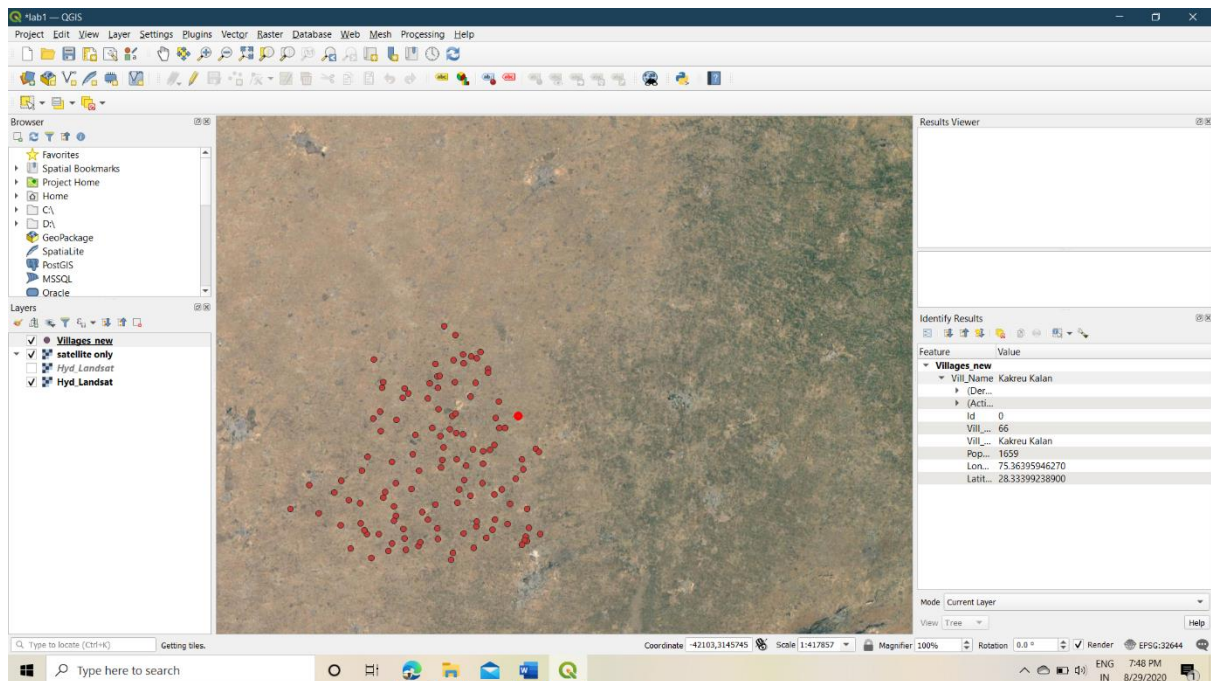
Exercise 1: Read the raster and vector dataset in QGIS

Tasks: Open the given Raster and vector dataset in QGIS and provide the following information

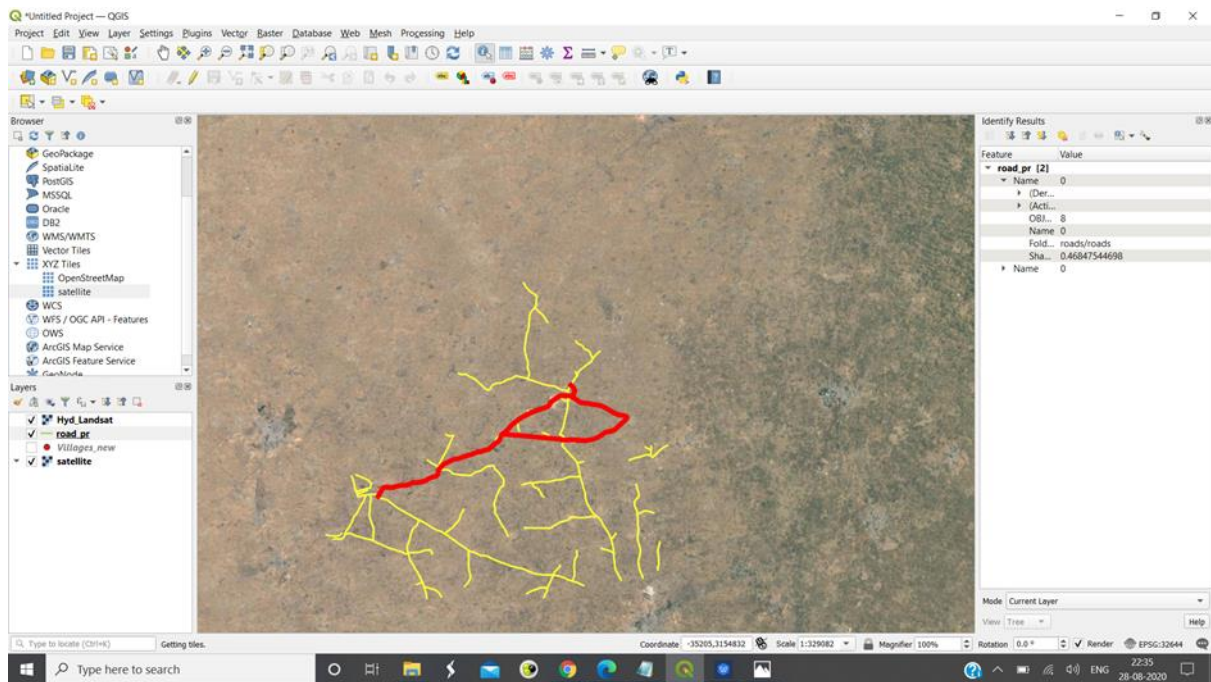
Snap shot view (incorporate the computer time taskbar) of the raster data (Hyd_Landsat.TIF)



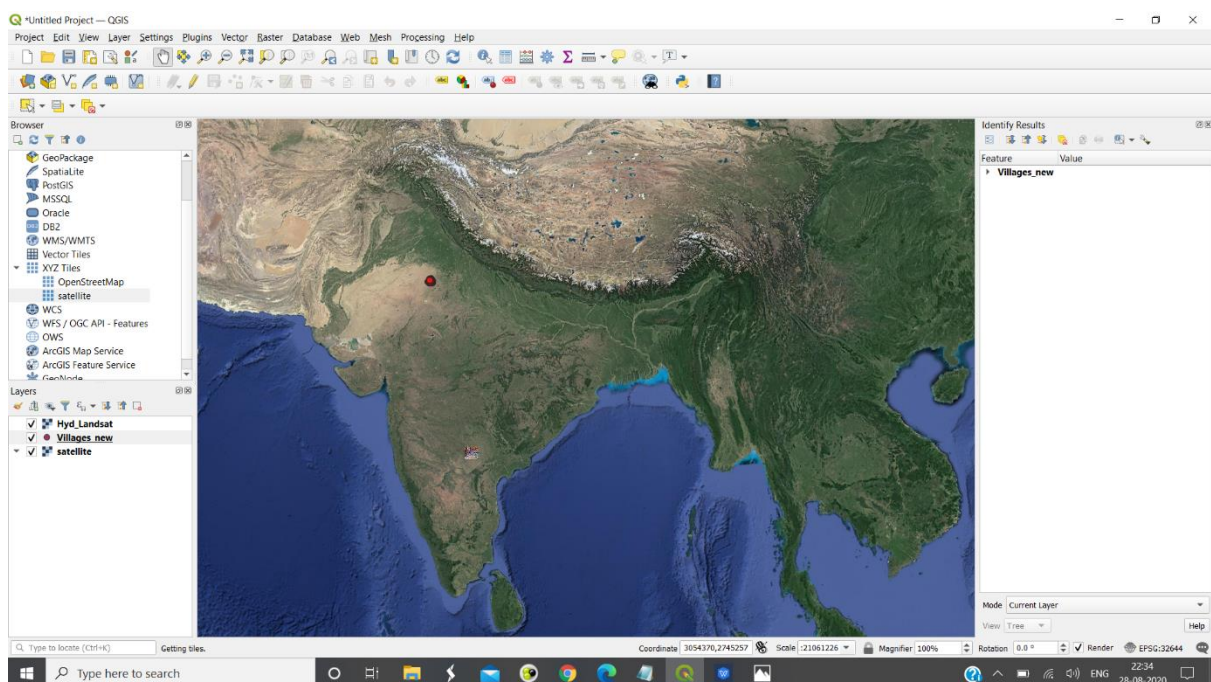
Snap shot view (*incorporate the computer time taskbar*) of the point dataset



Snap shot view (*incorporate the computer time taskbar*) of the line dataset



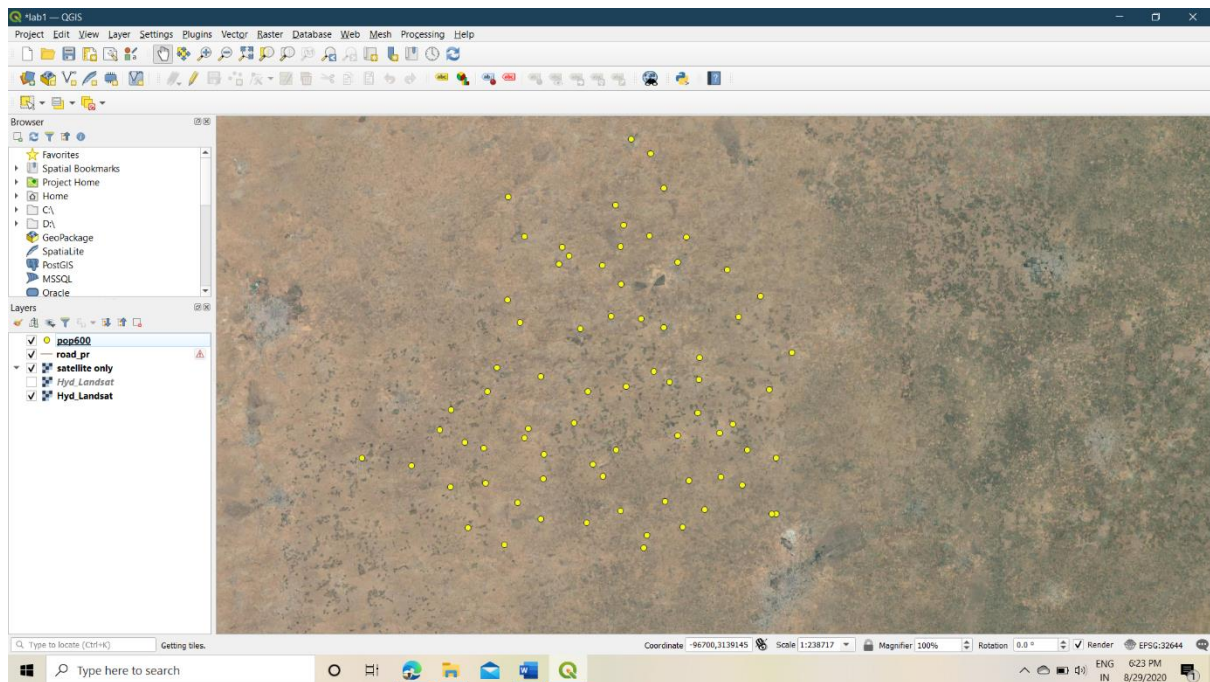
Snap shot view (*incorporate the computer time taskbar*) of the base map (using the link)



Basic Spatial analysis:

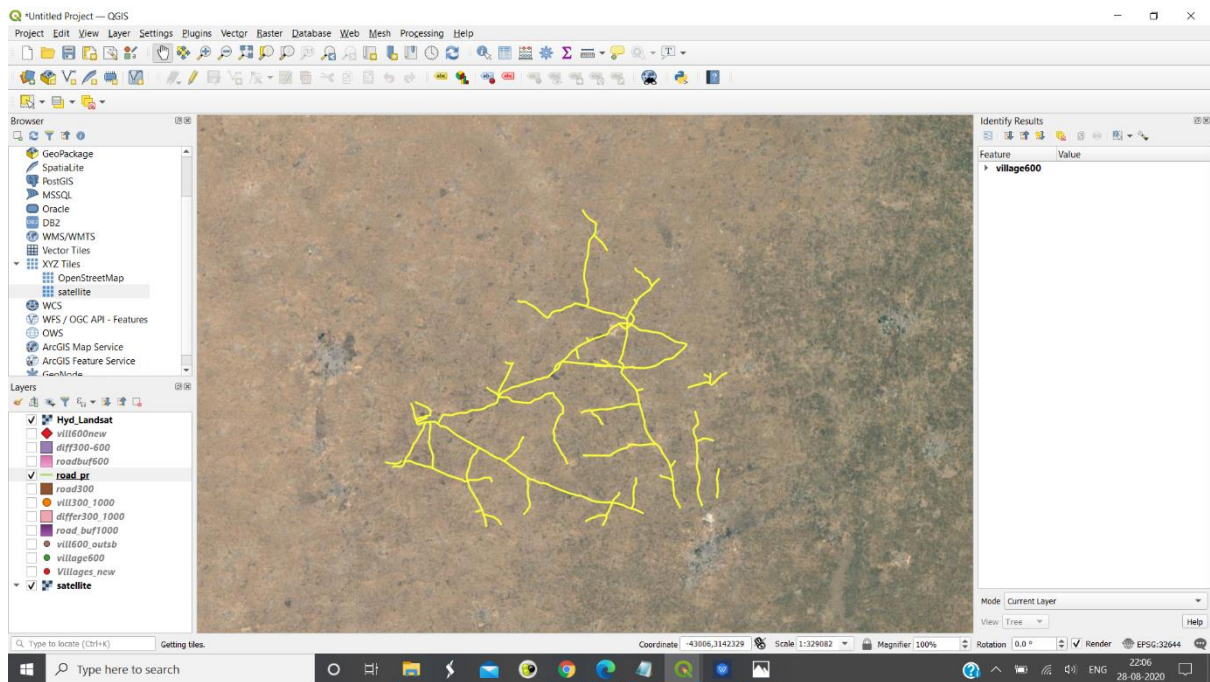
Exercise 2: Extract villages with population greater than 600 using select features using an expression.

Snap shot view (*incorporate the computer time taskbar*) of the village with population >600



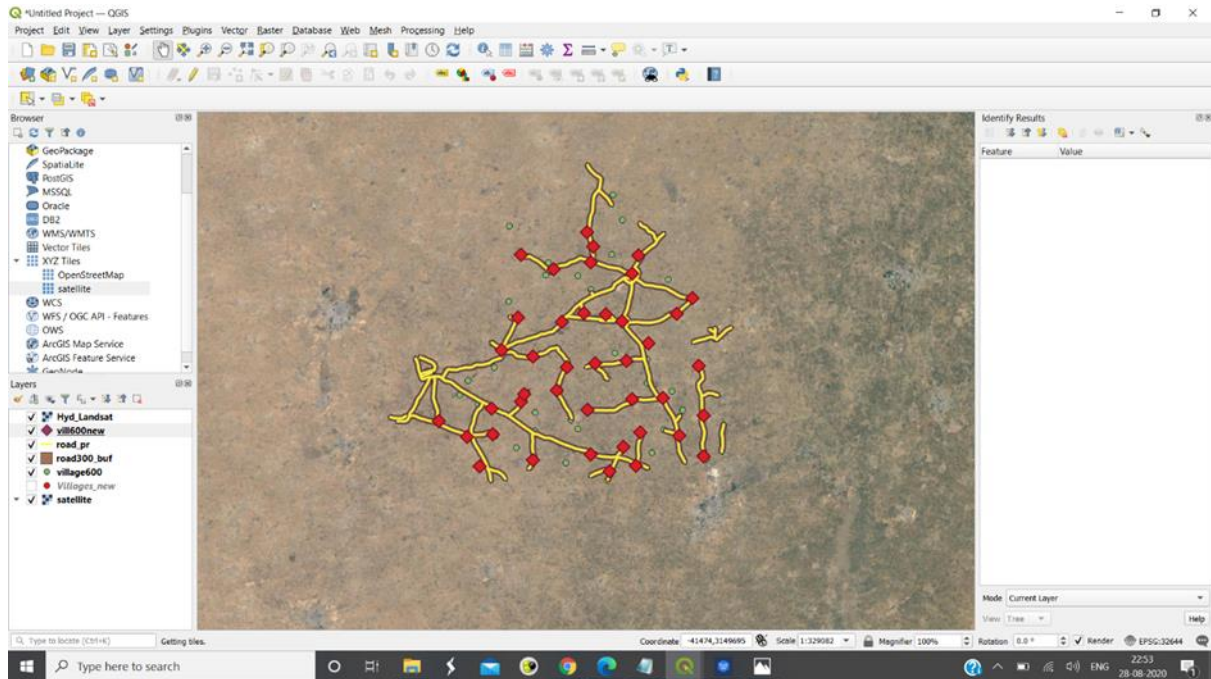
Exercise 3: Create the buffer of the roads for 300 m and show the output.

Snap shot view (*incorporate the computer time taskbar*) of road buffer 300 m

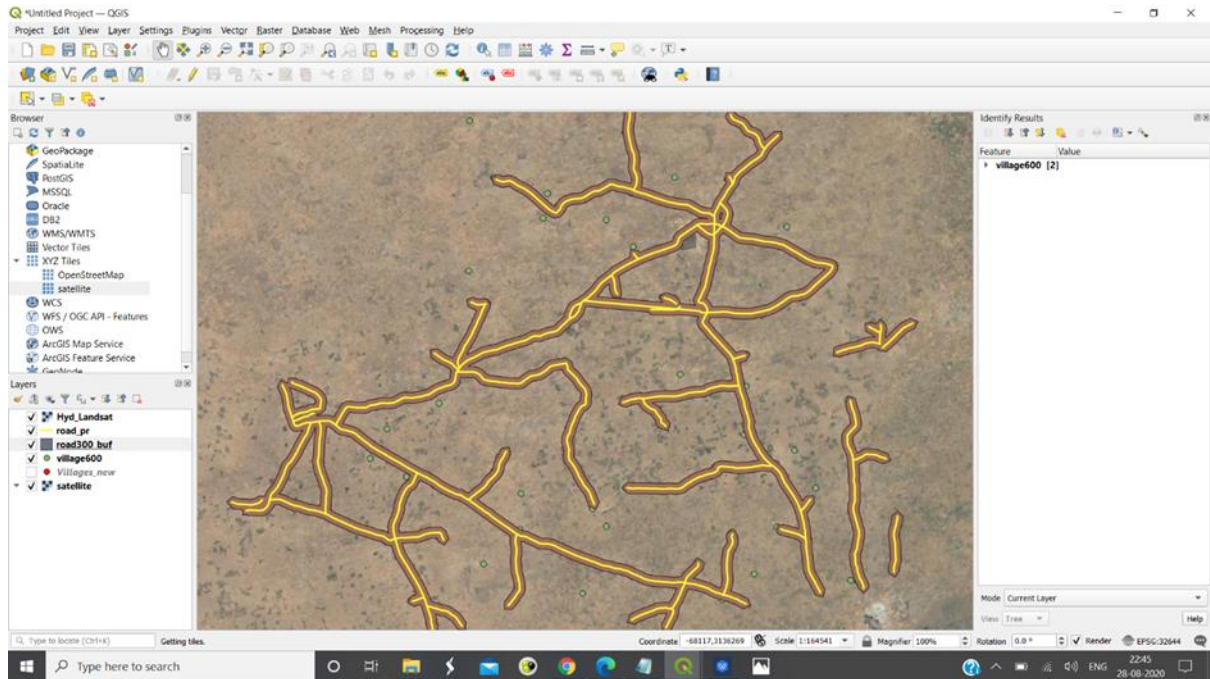


Exercise 4: Extract the villages that are within the 300m buffer as well as outside the 300m buffer separately

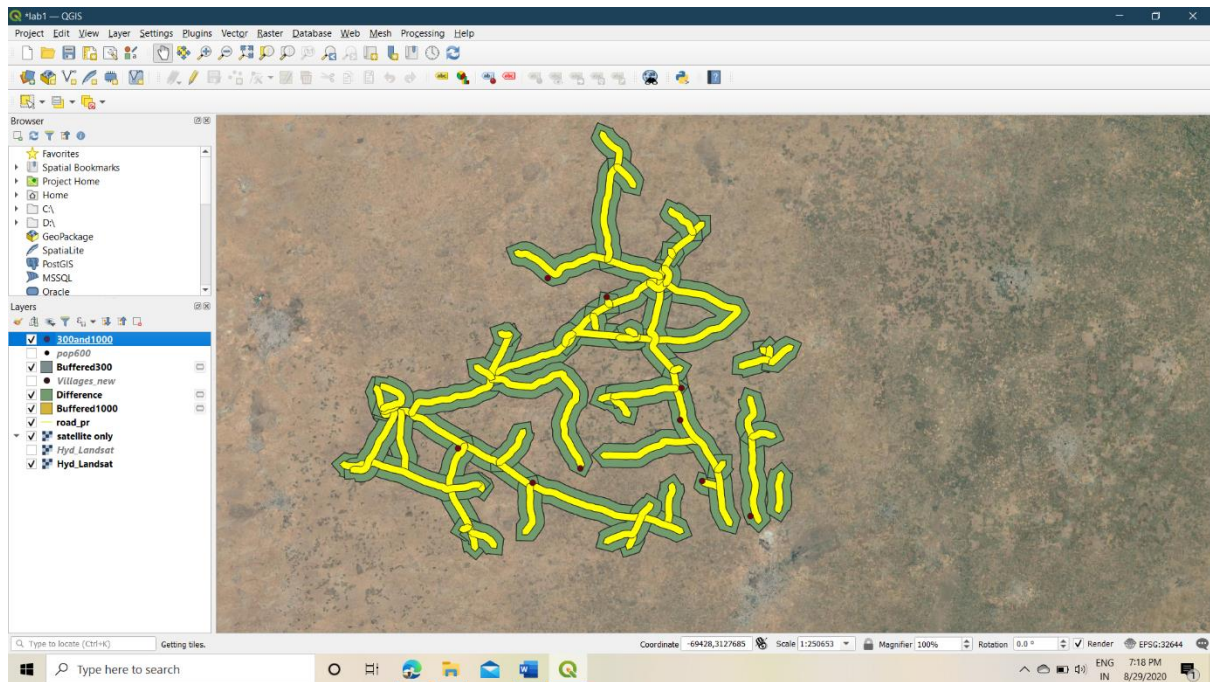
Snap shot view (*incorporate the computer time taskbar*) of villages (population>600) within 300m buffer of the roads



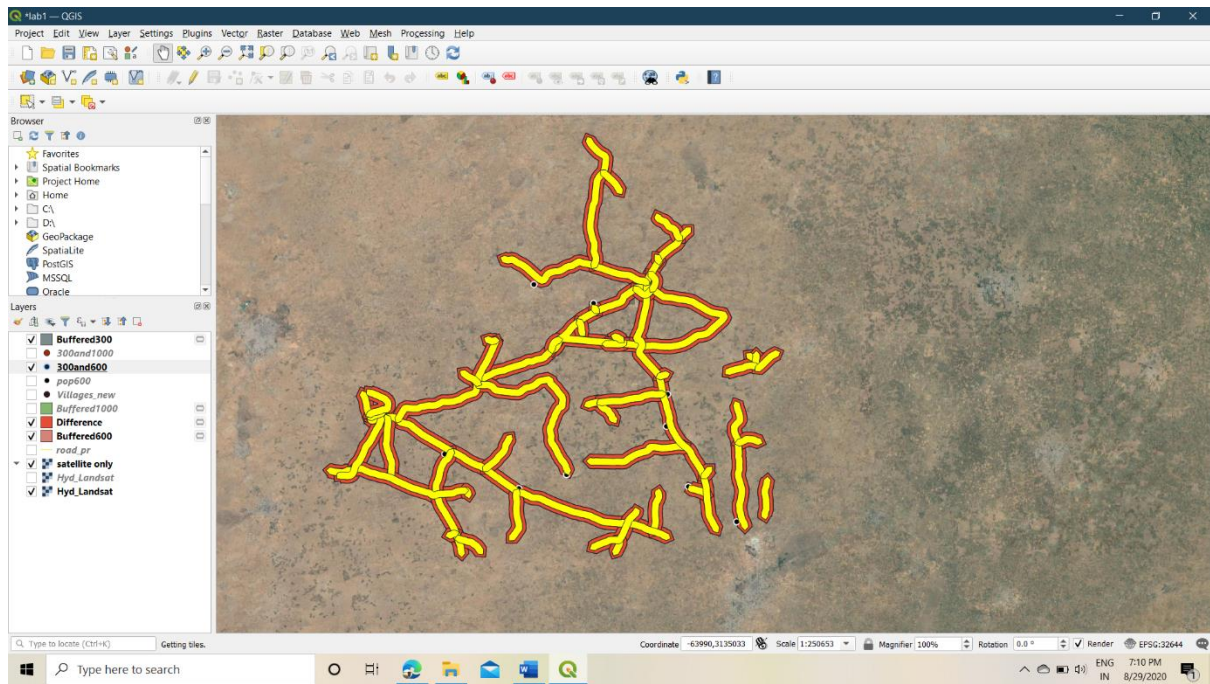
Snap shot view (*incorporate the computer time taskbar*) of villages (population>600) outside 300m buffer of the roads



Exercise 5: Extract the villages (*population*>600) that lie between 300m and 1 Km of roads with population



Snap shot view (*incorporate the computer time taskbar*) of villages (population>600) located within 300m and 600 m of the roads



-----End of Exercise-----