**Introduction**

The Anand District of Gujarat, is known for its agrarian economy, which makes it unethical to develop coal and petroleum industries in this area. Vallabh-Vidyanagar is a town in Anand district which is renowned as an educational hub of Gujarat. Every year more than one lakh students study here, who are supportive of tech. development and use.

Anand district has the potential to incorporate electric vehicles. Even if electric buses are provided, it will require planned & rectified power grids and charging stations. Hence, a Geospatial Solution is required.

**Data Required**

* **Road Network** (QuickOSM Plugin in QGIS 3.10)
* **Petrol/Fuel Stations** (Google Earth Pro)
* **Power Transmission Network (**Open Source **GETCO Power Map of Gujarat** after Georeferencing, clipping and digitizing it for Anand region to prepare a vector Power Grid for Anand District.
* **Built-up Area with Prediction**

**Methodology**

Resourcesat LISS-III data was layer stacked, mosaicked, clipped and classified using Maximum Likelihood Classifier. Thereafter, Cellular Automata Markov Chain Model was used for creating Anand District Land Cover Predictions for year 2020-21.

The “Select by Location” tool from QGIS was used to find the suitable petrol stations within Anand District which are in range of Power Lines to avoid transmission loss, while covering an area of 9 Km2 as **required** by **Ministry of Power (2018).**

Later the selected suitable petrol stations were associated with the **predicted builtup area** of Anand District for 2020-21, because the petrol stations surrounded with builtup area would be an ideal place to expect sufficient demand for Electric Vehicles. Further, Electric buses can start/halt at these stations due to sufficiently large population cluster of that location.