

IC ETCI 2021 Competition
Machine Learning Based Feature Extraction of Electrical Substations
From Satellite Data Using Open-Source Tools

Dataset:

The dataset for training consisting of 100 image chips is provided herewith. Each image chip is of size 750 lines * 750 columns * 3 channels (8-bit) in '.jpg' format. Each image chip consists of sub-station feature. The target feature to be identified is provided in the associated ESRI Shape file ('.shp'). Also the same feature is provided in '.csv' file, for people not familiar with shape file. The coordinates in the .csv are image coordinates (origin at top left). The .csv file contains the feature in $(x_1 y_1), (x_2 y_2) \dots (x_n y_n)$ format. The image chip file, '.shp' file and '.csv' file have the same file names for a particular sub-station.

Additional Resources:

Some Links to online Tutorials for Python, Pandas, Numpy, Tensorflow, ScikitLearn:

1. <https://www.w3schools.com/python/>
2. <https://www.tutorialspoint.com/python/index.htm>
3. https://www.tutorialspoint.com/python_pandas/index.htm
4. https://www.w3schools.com/python/numpy_intro.asp
5. <https://www.tutorialspoint.com/tensorflow/index.htm>
6. <https://scikit-learn.org/stable/tutorial/index.html>
7. https://www.tutorialspoint.com/scikit_learn/index.htm