Remote Sensing Satellite:

'Remote sensing is the process of detecting the physical characteristics of an area by measuring its reflected and emitted radiation at a distance (typically from satellite or aircraft). Special cameras collect remotely sensed images, which help scientists 'sense' things about the Earth.

Some examples are:

Cameras on 'satellites' and 'airplanes' take images of large areas on the Earth's surface, allowing us to see much more than we can see standing on the surface.

'Sonar' systems on ships can create images of the ocean floor without needing to travel to the bottom of the ocean.

Cameras on 'satellites' can be used to make images of temperature changes in the oceans.

Few uses of remotely sensed images of the Earth include:

Large 'forest fires' can be mapped from space, allowing rangers to see a larger area than the surface.

We are tracking clouds to predict the weather or watch erupting volcanoes and help to watch for dust storms.

We are tracking the growth of a city and changes in farmland or forests over several years or decades.

Dataset:

Satellite image Classification Dataset-RSI-CB256, This dataset has four different classes mixed from Sensors and google map snapshot. Each class includes '1081' earth images.

VGG:

'VGG' network is a 'convolutional neural network' model proposed by K. Simonyan and A. Zisserman in the paper "Very Deep Convolutional Networks for Image Recognition." This architecture achieved top-5 test accuracy of 92.7% in 'ImageNet,' with over 14 million images belonging to 1000 classes of images.

It is one of the most famous architectures in the deep learning field. Replacing large kernel-sized filters with 11 and 5 in the first and second layer respectively showed the improvement over 'AlexNet' architecture, with multiple '3×3' kernel-sized filters one after another. It was trained for weeks and was using 'NVIDIA Titan Black' GPU's.