**CLASSIFYING DIFFERENT LAND USES IN SATELLITE PHOTOS**

By Using A CNN Model

**Introduction:**

Satellite image sources are Earth photographs taken by satellite. These shots are also known as spaceborne photographs. These photos are provided by satellite firms for use in a range of application sectors. Satellite photos can be useful in a wide range of applications. Meteorology, land planning, academia, surveillance, monitoring, agriculture, marine studies, conservation, geology, and warfare are some of the primary application sectors.

This work proposes a system for categorizing satellite photos into various locations like water bodies, green areas, overcast areas, and deserts. This interpretation can then be used for a variety of applications. The proposed model is more accurate, and empirical results back it up. The suggested model is also compared to some deep learning models to demonstrate its superiority. This uses VGG (Visual Geometry Group) image classification architecture, which has been shown to be more successful than other used models. This novel strategy improves classification accuracy and lowers the computing cost of training the model. The research demonstrates a significant development in the field of satellite image processing by using VGG.

A diagram of a data processing process

Description automatically generated

Figure 1: Flowchart Representation

This project's objectives are as follows:

* For land classification, use CNN architecture, specifically VGG.
* Train the model on a variety of satellite picture datasets.
* Use relevant measures to assess the model's performance.