**DATA WAREHOUSING AND MINING**

**PROJECT ABSTRACT**

Project Title: Traffic signs Recognition

Problem statement:

We have heard about the self-driving cars in which the passenger can fully depend on the car for traveling. But for complete safety, it is necessary for vehicles to understand and follow all traffic rules.

So, for achieving accuracy in this self-driving car technology, the vehicles should be able to interpret traffic signs and make decisions accordingly. Our project is intended for the same.

Project Description:

For our project, we will be using the public dataset available at Kaggle:

**Traffic Signs dataset**

The dataset contains more than 50,000 images of different traffic signs. It is further classified into 43 different classes. The dataset is quite varying. The size of the dataset is around 300 MB. The dataset has a train folder which contains images inside each class and a test folder which we will use for testing our model.

Required or to be used packages:

Keras, Matplotlib, Scikit-learn, Pandas, tensorflow, sklearn, PIL(python imaging library)

Our approach to building this traffic sign classification model will be in four steps:

* Explore the dataset
* Build a CNN model
* Train and validate the model
* Test the model with test dataset