**Assignment - 2** (Model from Scratch)

1. **Topic**: Traffic-Sign-Detection

2. **Architecture**: MLP using Feed-Forward network with 1 - hidden layer - 900 x (512) x 16

3. **Pre-Processing**: Converting the 30x30 image to gray scale and taking every pixel as input

in npArray (Smoothening the image if needed i.e., if more noise is present).

4. **Dataset**: 270 images for Training and 80 Images for Testing each of size 30x30

5. **Analysis**: When it comes to Feed Forward Network the neurons are getting saturated and

are not able to back propagate the error after a particular no of iterations. Tried with

different activation functions.

a. **Classes**: 16 Classes

b. **Accuracy**: Around 5 - 10 % (since the neurons are getting saturated)

c. **Iterations**: 3000 (but getting saturated after some iterations)

d. **For improvement in accuracy**: We can add more hidden layers in network model. Can increase the clarity in image, input size. Changing activation function according to input size.